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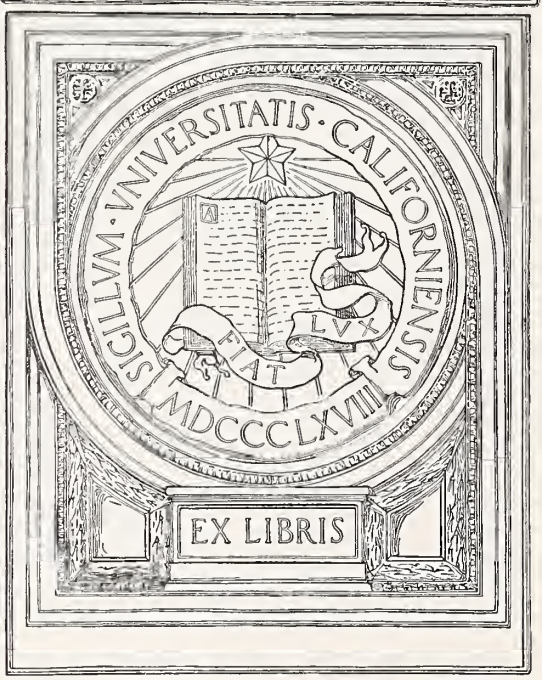

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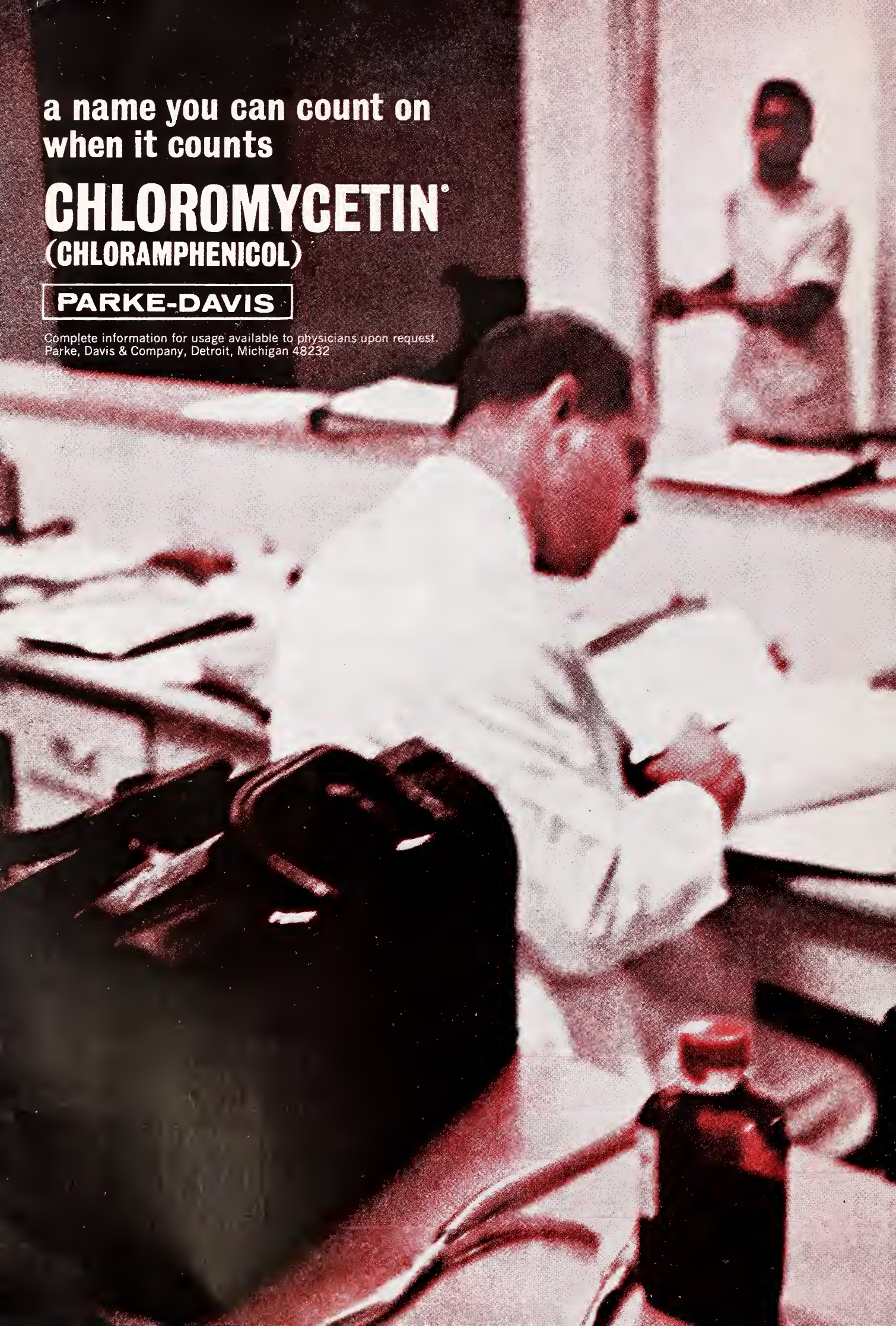

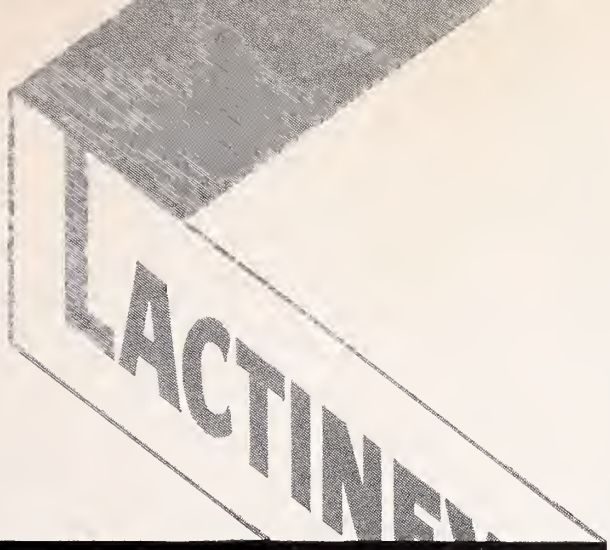

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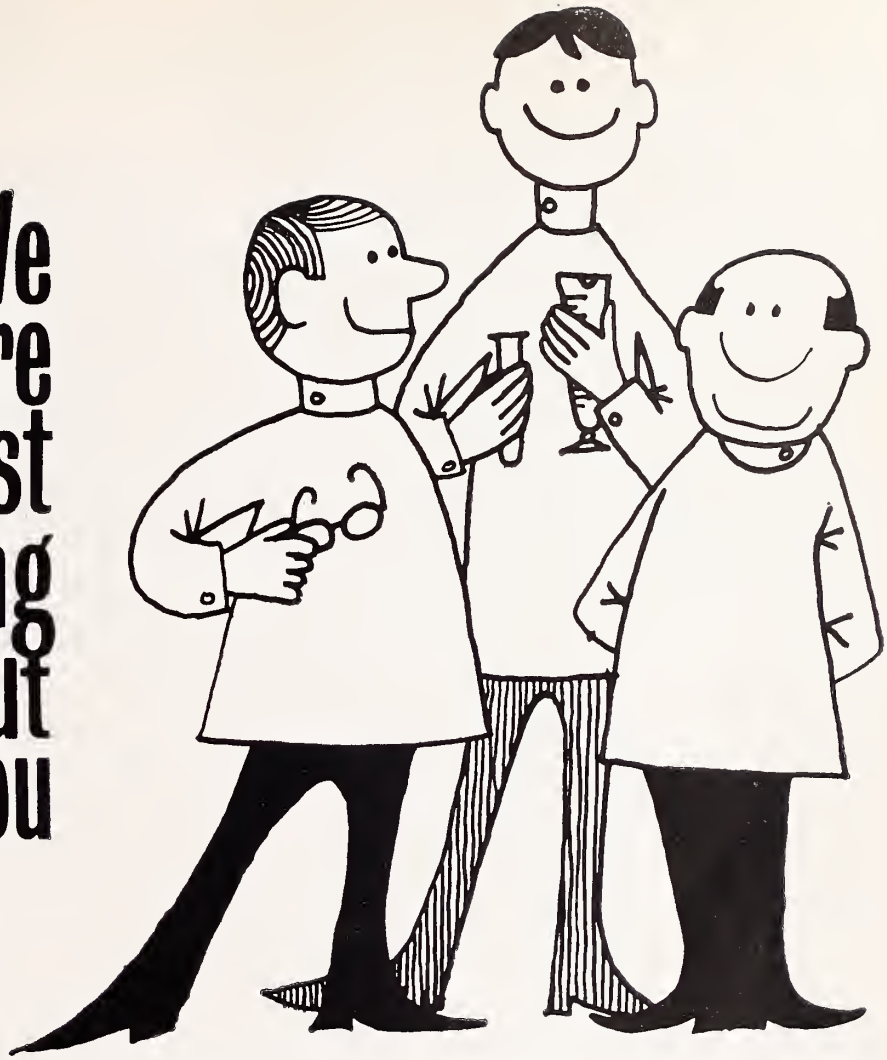

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District	President	Secretary	Place and date of meeting
1.	R. E. Weitzel, Princeton	James L. Hobgood, Evansville	
2.		J. S. Brown, Carlisle	
3.	Daniel H. Cannon, New Albany	Elmer L. Wallace, New Albany	
4.	Frank B. Bard, Crothersville	Harold E. Miller, Seymour	
5.	Thomas J. Conway, Terre Haute	Arnold W. Kunkler, Terre Haute	Terre Haute
6.	Paul Inlow, Shelbyville	Perry Seal, Brookville	
7.	Jay Reese, Martinsville	James H. Gosman, Indianapolis	Franklin
8.	Donald E. Spahr, Portland	Joseph F. Vormohr, Portland	
9.	Nolan Hibner, Monticello	Max Fields, Monticello	May 16, 1968, Monticello
10.	John J. Reed, Hobart	Raymond Doherty, Crown Point	
11.	Charles Wise, Camden	Fred Poehler, La Fontaine	Carroll County, host
12.	Max M. Gitlin, Bluffton	Berniece Williams, Fort Wayne	May 15, 196B, Angola
13.	E. C. Mueller, LaPorte	John Hildebrand, South Bend	

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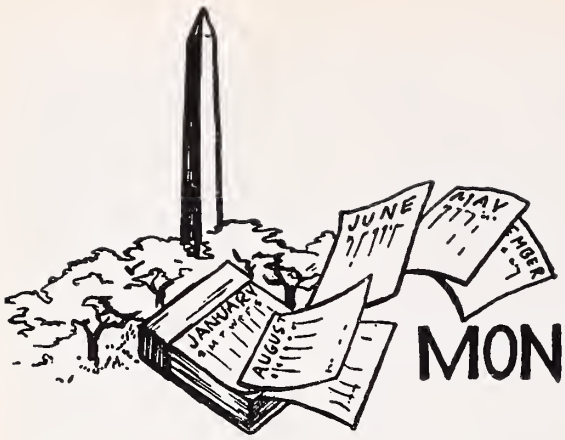

This summary of what is happening in Washington is prepared by AMA's Capitol office and air-mailed to *The Journal* on the ninth of each month preceding month of issue.

MONTH IN WASHINGTON

WASHINGTON, D.C.—The National Advisory Commission on Health Manpower reported that the nation's health care system must be improved to assure that quality health care is available to all Americans at a reasonable cost.

THE 15-member commission, in its report to President Johnson, urged a substantial expansion in the capacity of existing medical schools and continued development of new schools. At the same time, the advisory group said that "although the need for more physicians is urgent, the costs and dangers of a crash effort to increase production appear to outweigh the benefits."

THE COMMISSION, headed by J. Irwin Miller, chairman of the Cummins Engine Co., Columbus, Ind., was set up in May, 1966, by President Johnson to recommend bold, imaginative ways to meet health manpower needs. Five physicians signed the report, including Dwight Wilbur, M.D., president-elect of the American Medical Association.

THE commission members agreed that tackling the problem of manpower, alone, would not cure present ills.

". . . IF additional personnel are employed in the present manner and within the present patterns and systems of care, they will not avert, or even perhaps alleviate, the crisis," the commission said.

"UNLESS we improve the system through which health care is provided, care will continue to become less satisfactory, even though there are massive increases in costs and in numbers of health personnel."

THE COMMISSION recommendations were accompanied by an assertion that government alone is not big enough to solve the problems of health care for the American people.

THE AMERICAN Medical Association's House of Delegates at its recent meeting in Houston, Tex., approved a report of the Board of Trustees on the commission's report. The Board stated:

"THE 'REPORT of the National Advisory Commission on Health Manpower' reflects much of the serious attention given to the evolving needs of health care long recognized, studied and implemented by the American Medical Association and other professional groups in the health fields.

"THE HOUSE of Delegates and the Board of Trustees of the AMA have not had time to study the report carefully. . . . However, it

Continued

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Continued

appears to recognize the needs arising from the rapid growth of the public's desire for health care. This attitude is the result of increasing awareness of the great advances in medical science and techniques, and of the prolongation of life for millions into middle and advanced ages. . . .

"THE REPORT will receive the intensive study of the various expert groups within AMA and reports on their recommendations will be issued as soon as they can be developed properly. There appear to be some areas in which modifications will be necessary to assure attaining the objectives sought for advancement of health care for all citizens."

THE COMMISSION'S proposals included:

—FEDERAL FUNDS in support of capital or operating costs of education should be provided to a medical school in such a way that they create economic incentives for the school to expand enrollment while improving its quality.

—THE FEDERAL government should make available to any medical student loans to cover the full costs of tuition and living expenses during formal professional education. The student should be able to choose between repaying the loan from earnings over a period of years or giving two years of his time to approved national service apart from Selective Service obligations.

(DR. WILBUR discussed from these two recommendations: "I believe the principle is not sound and that the recommendations are impractical, unnecessary, will not serve the purposes intended and will be largely unacceptable to most students.")

—THE FEDERAL government should give high priority to the support under university direction of experimental programs which train and utilize new categories of health professionals.

—AT A MINIMUM, foreign-trained physicians who will have responsibility for patient care should pass tests equivalent to those for graduates of U.S. medical schools.

—THE SELECTIVE Service Act should be amended to provide for the automatic transfer of the records of every draft-eligible health professional, upon his graduation from professional school, from the local board of his original registration to the local board in whose jurisdiction he works and for subsequent transfer with each change in the location of his work.

—THE SELECTIVE SERVICE Act should be amended to provide equal draft-liability for U.S. and foreign medical graduates.

—SERVICE WITH the U.S. Public Health Service should be phased out as a substitute for the military obligation of health professionals.

—THE DEPARTMENT of Defense should be instructed to encourage the greater use of the Military Medicare Amendments of 1965 and should study the feasibility of utilizing voluntarily obtained health professionals in military facilities located in the United States.

—NURSING SHOULD be made a more attractive profession by such measures as appropriate utilization of nursing skills, increased levels of professional responsibilities, improved salaries, more flexible hours for married women, and better retirement provisions.

—PROGRAMS for health care of the disadvantaged should be given highest priority and made available wherever needed.

—PROFESSIONAL SOCIETIES, universities, and state governments should undertake, with federal support, studies on the development of guidelines for state licensure codes for health personnel.

—PROFESSIONAL societies and state governments should explore the possibility of periodic relicensing of physicians and other health professionals.

—PROFESSIONAL societies, health insurance organizations, and government should extend the development and effective use of a variety of peer review procedures in maintaining high quality health and medical care.

PRESIDENT SIGNS MENTAL RETARDATION BILL

PRESIDENT JOHNSON signed a $281 million mental retardation bill with a statement that the nation still is not doing enough to solve the problem.

HE SAID that in dealing with the problem of mental retardation it was clearly the obligation of the nation to act. "We are not doing enough, we must do more, we are going to do more," Johnson said.

THE BILL strengthens federal aid for the construction of new facilities for the mentally retarded.

HE ALSO signed a three-year, $589 million extension of federal aid for state public health programs.

IT PROVIDES for federal licensing of clinical laboratories operating in interstate commerce unless they are run by pathologists, in which case the facilities would have to meet standards set by the American College of Pathologists or the American Hospital Association. Individual physicians operating labs for their own patients would not be affected by the new law. ◄

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Letters to the editor

To the Editor:

I am from Kenya, East Africa and I have been studying in USA since 1958. I am presently interning at the Marion County General Hospital, Indianapolis, Indiana. I completed my medical studies this June from the Indiana University Medical School.

By June, 1968, I plan to be in Kenya and on arrival I want to establish a general medical-surgical diagnostic clinic in a rural area where the medical needs are paramount. However, due to a lack of sufficient funds and resources, I am requesting both material and financial assistance from organizations and firms such as yours. This will enable me to meet some of the difficulties I will encounter in establishing a new medical clinic in Africa.

I would feel greatly honored if your association would be kind enough to contribute pharmaceuticals and/or medical-surgical supplies no matter how small. You may forward your contribution to the clinic or to my present Indianapolis address. The clinic will be known as: Kiambu Community Medical Clinic, P.O. Box 167, Kiambu, Kenya, East Africa. This is also my home address.

If you should ever visit Kenya, please remember to visit this clinic for you and any other member of your association will be most welcome any time.

The clinic will be open to all people regardless of color, creed, race or the ability to pay.

Thank you for your consideration.

Very sincerely yours,
Augustine M. Muchori, M.D.
Marion County General Hospital
Indianapolis, Indiana 46207

To the Editor:

Prospective researchers in a clinical or basic science projects closely allied to the field of tuberculosis or related respiratory diseases are invited to make application for a research grant to the Research Committee of the Indiana Tuberculosis Association.

Preference will be given to applicants within the state of Indiana. Applications must be received not later than December 31, 1967.

For further information contact:
Richard N. Matzen, M.D., Chairman,
Medical Research Committee,
Indiana Tuberculosis Association,
30 E. Georgia St. - Room 401,
Indianapolis, Indiana 46204.

To the Editor:

We are increasing the staff of our medical service and are asking you to help us recruit a physician. It would be appreciated if this letter could be given the widest publicity possible throughout your medical association.

The annual starting salary may range from $9,221 to $20,585 depending upon the personal qualifications of the individual physician. License to practice in one of the 50 states is the only licensure requirement. Many fringe benefits are available which make staff appointments to VA hospitals well worth considering. Some of these are low cost life insurance, hospitalization benefits including family plans, annual and sick leave, refresher educational opportunities, and retirement benefits.

We will consider any physician interested in internal medicine. Candidates should contact the Chief of Staff or the Chief, Personnel Division, Veterans Administration Center, 2360 E. Pershing Blvd., Cheyenne, Wyoming 82001. Either of these individuals will furnish necessary application forms and any other information desired. If you have a listing of physicians desiring placement and would send us a copy, we will be happy to contact them.

Thank you for any help you can give us in this matter.

Sincerely yours,
M. W. Allen
Center Director

GI Bill Allowances

Educationally disadvantaged veterans now receive educational allowances under the new GI Bill to complete high school or take refresher courses without diminishing their eligibility for college education or other training, the Veterans Administration states.

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What's New?

Talwin, a new non-narcotic pain-killing drug in the morphine range of potency developed by Winthrop Laboratories, has been approved by the FDA. It is now available in injectable form. A New Drug Application for its use by mouth will probably be filed soon. Talwin (brand of pentazocine) is not a narcotic and is not subject to narcotic regulations. It may be given intramusculary, subcutaneously or intravenously.

* * *

"Biology of Emotions" by Edmund Jacobson, M.D., Ph.D., LL.D., published by Charles C Thomas, treats of the specific function of emotion and its relation to neuromuscular functions. The author reviews personal laboratory and clinical investigations on emotion covering 35 years of continuous application.

* * *

A. H. Robins is introducing Tybatran™ (tybamate) as a tranquilizing agent for use in a variety of psychoneurotic disorders, especially in the treatment of anxiety and tension components of psychoneuroses. Package inserts will carry full information concerning the use and administration of the drug.

* * *

A. H. Robins is introducing Robinul® (glycopyrrolate) Injectable, as a companion product to the oral dosage forms of Robinul. It will be available in 1 cc. ampuls and 5 cc. multiple-dose vials. Detailed information will be contained in the package insert.

* * *

Beltone is introducing a new series of solid-state portable audiometers. Three models in their D-Series meet all screening, diagnostic and clinical speech requirements important to physicians and audiologists. The units are lightweight, varying from 10½ to 11½ pounds. All have a full range of 11 audiometric frequencies.

* * *

The Colson Corporation of Chicago is manufacturing a new line of steel wire shelving units which can be constructed in various heights, widths and depths to fit available storage space. Finishes are in zinc, stainless steel and chrome. The sturdy but open-welded rod design assures strength, minimum weight, free air circulation and easy maintenance. The units can be made into mobile trucks by adding rubber tired casters.

* * *

News of what is new in the medical supply industry is composed of abstracts from news releases by manufacturers—of pharmaceuticals, clinical laboratory supplies, instruments, and surgical appliances and book publishers. Each item is published as news and does not necessarily constitute an indorsement of a product or recommendation for its use by THE JOURNAL or by the Indiana State Medical Association.

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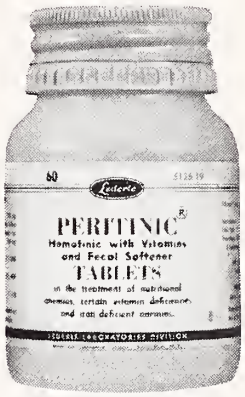

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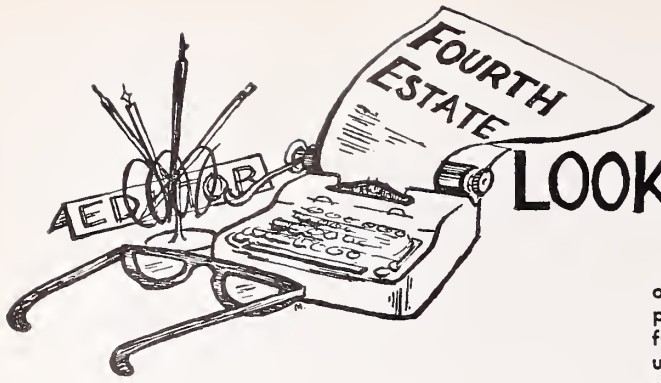

LOOKS AT MEDICINE

This section of THE JOURNAL is devoted to the presentation of opinions which appear on the editorial pages of the public press, and which are of interest to the medical profession. Its function is to review comments which may be favorable or unfavorable to medicine. Members are invited to submit editorial clippings for this column.

Tele-Care

One of the tragedies which sometimes befalls our elder citizens, who must live alone, is that they can become injured in a home accident. Unless a neighbor or friend happens to look in they may lie helplessly for hours or even days before they are found.

To deal with this problem, a program will be launched Nov. 1 by the Auxiliary to Community Hospital called Tele-Care.

Questionnaires have been sent to elderly persons who are patients of doctors on the staff at Community and lists of these persons prepared.

Volunteers will be on duty each day so these older people can call the service simply to tell them they are all right. If no call comes, the volunteers will check first with friends or neighbors. If nothing can be learned in this manner, police will be asked to check.

The program is to be operated under the direction of the Rev. William A. Hogsett, chaplain at Community. Initially, while it is to be for patients in the Community area, it is hoped the idea will spread to other hospitals in the city so that no elderly person who lives alone need fear helplessness from injury or accident.

In addition, the volunteers will call periodically on persons who have signed up for the service, which is being offered free.

Elderly persons who wish to avail themselves of the service, whether their doctor is on Community's staff or not, may do so by writing Chaplain Hogsett, 1500 N. Ritter Ave.

The Tele-Care plan fills a vital community need. Something as simple as a telephone call—or the lack of one—can easily spell the difference between a tragedy and a minor mishap.

We commend the volunteer auxiliary of Community for their idea and hope it soon spreads to become city-wide.—*Indianapolis Star*, Oct. 30, 1967.

Continuing Battle

The Marion County Tuberculosis Hospital at Sunnyside is being abandoned as a healing institution and its patients transferred to General Hospital.

Because the name "Sunnyside" has been associated for a half century with the treatment and care of tuberculosis patients, medical authorities fear the public may have the impression there is no longer a need for such an institution. This is not the case.

In effect, Sunnyside is simply being moved to General Hospital where the facilities for treatment are more modern and complete. More than 100 patients have been transferred to the new quarters, under the supervision of Dr. John Miller, clinical director of the pulmonary diseases service of General Hospital.

The need for treatment remains and indeed may be increasing. Although there has been great improvement in the treatment of tuberculosis, it unfortunately remains a serious problem. More than 400 new cases were reported in the county last year and 333 new cases have been reported in the first nine months this year. Indications are that this year's total will exceed last year's.

Although the number of cases remains high, the prospects for quicker recovery are better than they used to be. Even though treatment requires at least 200 days, the length of the hospital stay has decreased because of the therapy provided by new drugs.

The war against tuberculosis has not yet been won. The disease still remains a dangerous threat and the battle is continuing with increased vigor in the new facilities at General Hospital.—*Indianapolis News*, Oct. 19, 1967.

Distinguished Native Son

Fort Wayne will forever have reason to be proud of the fact that Dr. George F. Dick, who died last week at his home in Palo Alto, Calif., was a native of this city.

He made a great contribution to humanity.

Dr. Dick and his late wife, Dr. Gladys Dick, developed the Dick vaccine for scarlet fever. They were the first to isolate the scarlet fever germ and to establish the test for its control and immunization.

For this and other scientific work

they were given many high honors.

In 1933, Dr. Edward H. Carey, then president of the American Medical Association, declared that Dr. Dick ranked "among the greatest in the field of medicine in the last century."

Much of his research was done in Chicago where he received his early medical training. He did graduate work in Vienna and Munich.

Dr. Dick had lived in Palo Alto since his retirement in 1957. He was 86 years of age at the time of his death. His ashes were returned here for interment in Lindenwood Cemetery.—*Fort Wayne Journal Gazette*, Oct. 17, 1967.

Our Political Doctors

During its meeting in Indianapolis last week, the Indiana State Medical Association House of Delegates voted to ask the American Medical Association to investigate foreign physicians who are in the United States.

Were the Hoosier delegates worried about the standards of medical care which the foreign doctors might bring into the country?

No. They were worried that the incoming doctors "have no understanding of the American way of life and are from socialist countries which tends to make them favor socialized medicine."

There was really no need to worry about the medical qualifications of these foreign doctors, since they must pass tests before being allowed to practice or study medicine here. But we find it disturbing that Hoosier doctors think the American "way of life" is to exclude foreigners. It is easy to forget that we were once all foreigners.

Even though the resolution passed, there was some encouraging objections. Dr. Rahim Farid told delegates they should not raise barriers to those who want to come to the United States from behind the Iron Curtain. He asked the delegates not to limit the American way of life to only native-born Americans. He also pointed out that the results would be rather disturbing if all professional and occupational organizations adopted the same attitude.

There are more so-called "foreign" doctors entering practice in Indiana and across the nation each year. But even the tremendous amounts of money spent by the AMA in a losing battle to defeat Medicare does not appear to have made an impression on some doctors.

Doctors lost much of their "political" influence when the old family doctor concept fell before the onslaught of specialization.

Although some doctors have been battling within the AMA to try and return some of the influence and prestige of the family doctor concept, it is possible that it may be too late to regain lost ground. People are less likely to look to their doctor for anything other than medical help. The only real political influence doctors could regain would be to begin house calls again, an idea which is now physically impossible and impractical.

But perhaps Dr. Donald Kerr of Bedford came up with the best comment. He remarked that the award for the outstanding scientific exhibit at the convention went to Dr. Wei-Ping Loh of Gary ". . .and that it not an Indiana name."—*Marion Leader-Tribune*, Oct. 17, 1967.

Abortion Questions Unanswered

Governor Branigin, at the close of the 1967 Legislature, vetoed a watered-down version of a bill which had been introduced to liberalize Indiana's 62-year abortion laws. It is fortunate he did so, for it later appeared that many of the legislators who voted for the measure were not completely aware of the terms and implications of the measure for which they had voted.

The measure had been introduced without the preliminary legislative studies which one would expect to precede legislation of such philosophical and sociological significance, and it was subjected to little if any open discussion on the floors of the House or Senate.

The campaign for the "liberalization" of the Indiana abortion laws did not, of course, end with that veto. Within the last few days, the House of Delegates of the Indiana State Medical Association has followed the lead of the American Medical Association, in recommending liberalizing legislation, providing it was in keeping with the latter organization's recommendations.

Most of the positions taken on the abortion issue, as we have pointed out before, have been taken without any real study of the problems involved, but on emotional aspects of the subject. Figures and statistics are waved before the public, but almost invariably the statistical records are cluttered with "more thans," "at leasts," "probablies," and other disqualifying terms.

However, it is most interesting that a feature story in the Oct. 13 issue of *Time* magazine quotes a survey conducted by *Modern Medicine* magazine last spring as showing that 87% of 40,089 physicians polled were in favor of liberalizing the abortion laws. At the same time 80% of those physicians were opposed to abortion for unwed girls, and 83% were against it for mothers who do not want more children (the main seekers of abortion, according to *Time*).

However, that same article suggests that limited laws, such as those which would be indicated by the poll of physicians, tend to have an effect opposite that which was intended.

Noting recent laws passed in Colorado, North Carolina and California permitting some kinds of abortions, the *Time* writers state, "Such limited legislation may increase illegal abortions as it seems to have done in Sweden. . . .In fact, the new laws merely codify what hospitals are al-

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ready doing. They do embolden doctors, but in practice they may prove more restrictive and even increase illegal abortions."

The article closes with what seems to be a plea for unlimited abortion, to be guided only apparently, "by conscience and intelligence."

Is that what the doctors, or, for that matter, the public wish? We doubt it.—*Fort Wayne News-Sentinel*, Oct. 20, 1967.

More Post-Mortems

Although autopsy and post-mortem have long been regarded as important medical tools, the medical profession has been laggard in encouraging wider use of these procedures. At a symposium sponsored by the Foundation for the Advancement of Medical Knowledge, Dr. Alfred Angrist gave some of the reasons for the trouble.

Difficulty in obtaining consent from the survivors was cited as one of the major roadblocks. However, it appears that much of the blame lies with the physicians themselves. Too few are sufficiently interested in the procedure to demand high quality post-mortems or to seek research funds for such programs in the medical schools. One consequence is a high incidence of error. Dr. Angrist said a recent study of 265 post-mortems showed that seven percent of the clinical diagnoses of the conditions that led to death were wrong and 53 were entirely correct.

The lag was further underscored by Dr. R. D. Teare, a British specialist in the application of medical science to the administration of justice. He contrasted American and British attitudes toward post-mortems, noting that in London some 80% of hospital deaths are so examined as against 30% in this country.

The symposium agreed to a campaign for greater recognition of the value of post-mortem in modern medicine. This is of vital importance, for no other procedure can substitute for the examination of the body after death. Better use of this tool would further raise the already high quality of medical care in the United States.—*Terre Haute Tribune*, Nov. 9, 1967.

The Measles Clinic

There are two ways to consider the Measles Clinic conducted at Washington School here last Sunday by the Knox County Medical Society in cooperation with the Indiana State Board of Health.

Dr. Ralph J. Jacqmain, county health officer, was bitterly disappointed when only 1,213 children were brought to the clinic for free measles immunization. "There were more than 6,000 children in the county in the age group who should have had the immunization," he said.

The organization was ready. Dr. Jacqmain had obtained 6,000 doses of measles vaccine from the State Board of Health. There were plenty of physicians of the medical society present, along with the public health nurses, nurses from the Good Samaritan Hospital and other helpers, all of them volunteering their help in an effort to "wipe out" measles in Knox County.

The only missing ingredient in a highly successful free clinic was the mass of children which could have been protected. The final count showed that 913 children from the Vincennes Community School District, 161 from the North Knox District and 139 from the South Knox District arrived and were immunized.

There is another side to the picture despite the disappointment of Dr. Jacqmain as he packed cartons of unused vaccine to return to the State Board of Health. The clinic showed again that health leaders of the county can and will cooperate in fully organized movements for the benefit of the community.

In addition, the benefits derived by the 1,213 children who were brought by their parents to the clinic last Sunday should not be minimized. Although the number was far from that sought, it still was a substantial segment of the homes of Knox County, and in these homes there can be a sense of security that most of the others may not enjoy. Who knows but that from one of these homes a substantial number of measles cases might not have been started this winter?

Still further, the pattern was laid. Perhaps another year and another effort accompanied by an even-stronger educational campaign in advance, might finish the task in Knox.

Dr. Jacqmain, the physicians, and the other volunteers who sacrificed a Sunday afternoon in an effort to make a significant improvement in prospects for the general health of the county are to be congratulated. Their efforts were not wasted. There are 1,213 marks in the records of the county to prove it.—*Vincennes Sun-Commercial*, Nov. 5, 1967. ◄

"All Interns are Alike"

It stands to reason. They all go through the same training; they all have to pass the same tests; they all have to measure up to the same standards; they all are underpaid, too. Therefore, all interns are alike.

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You might also say that all interns aren't alike, either.

From *The Journal* 50 Years Ago

The physician who only occasionally is called on to administer an anesthetic is painfully aware of the limitations of his usefulness and experiences but little incentive toward perfecting himself in this very important procedure. He is looked upon as a mere automaton and is accorded but scant consideration. Instead of being consulted concerning the choice of the anesthetic agent, the preliminary medication and other important considerations, he meets the patient for the first time amid the terrifying surroundings of the operating room, often without the formality of an introduction.

Himself ill at ease in the presence of a bevy of nurses with whom he has but slight acquaintance, and being goaded on by a surgeon impatient of the time it takes decently to anesthetize the patient, he bluntly blurts out some question about false teeth and chewing gum and slaps the mask on her face, the while she is being strapped to the table. The scene that follows need hardly be narrated. The reaction of the fright-crazed patient to the anesthetic cries to high heaven. She is strangling and vomiting and begging to be set free from her terrors, when some one pours gasoline on her abdomen and follows by rubbing in tincture of iodin [sic], "The Lord have mercy," a cloudburst of ether, asphyxia comes to her relief and the operation proceeds. The need for anesthesia past, the anesthetist and patient part, perchance never to meet again; he to go among pleasanter scenes, she to be taken to the ward where after a longer or shorter period of coma, awakens to fight and to vomit the weary hours away.

When anesthesia comes into its own as a specialty, the dread of operation, the discomforts, the terrors and the dangers incident thereto will be reduced to a minimum.—E. M. Hoover, M.D., "Anesthesia as a Specialty," *JISMA*, January, 1918.

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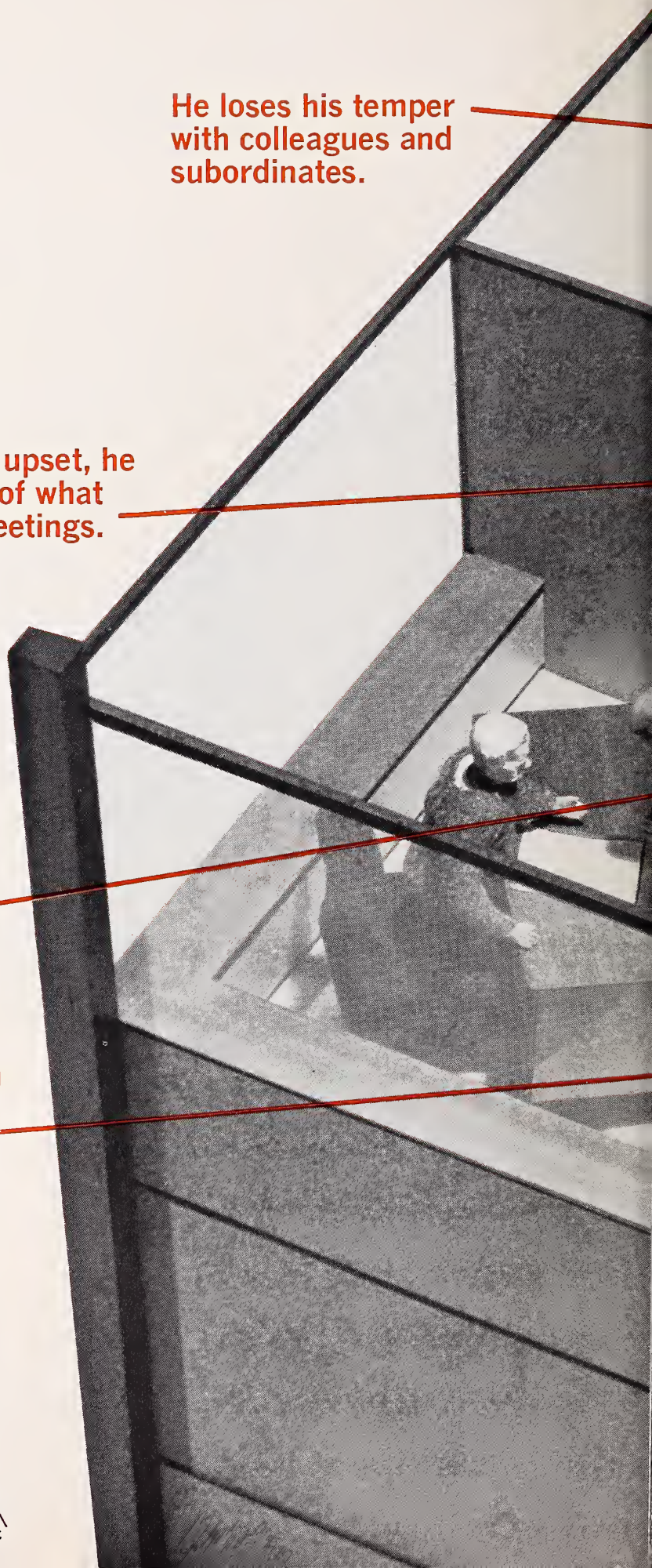

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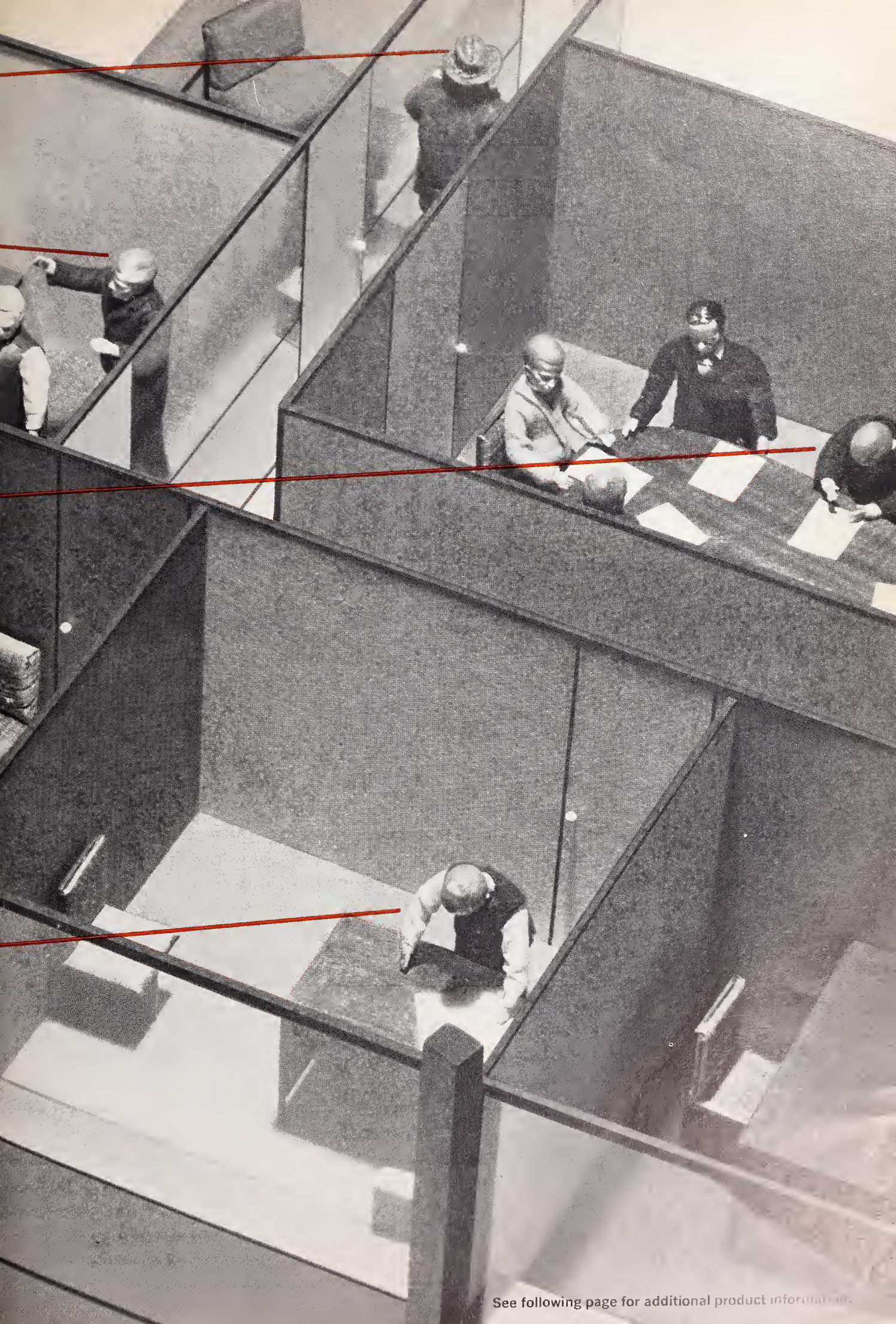

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Contraindications: Severely depressed or comatose states from any cause, and in association with or following MAO inhibitors; severe hypertensive or hypotensive heart disease.

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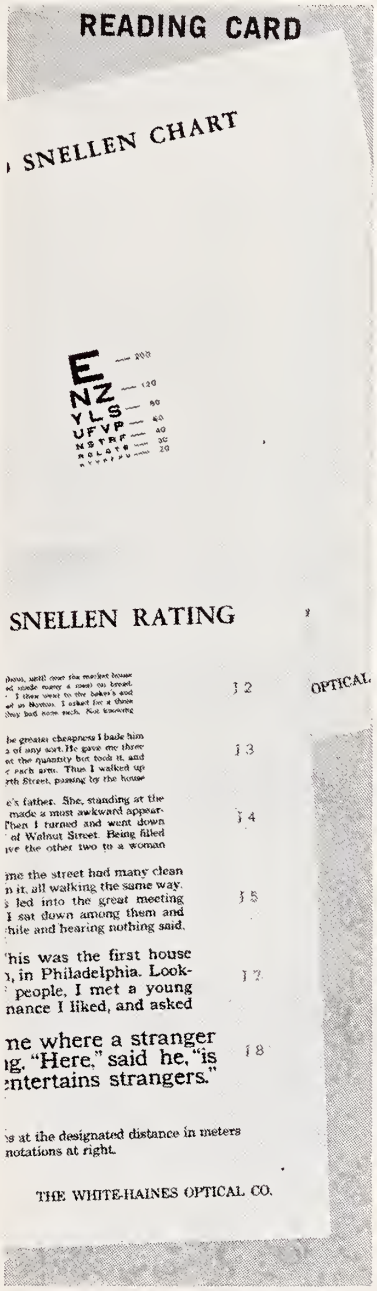

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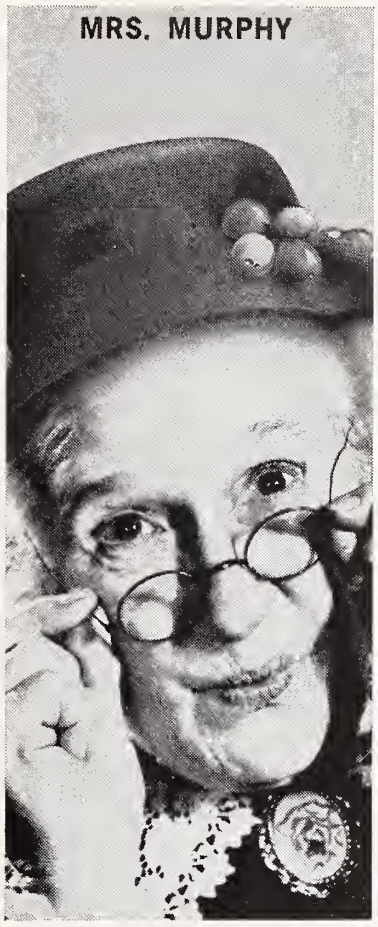

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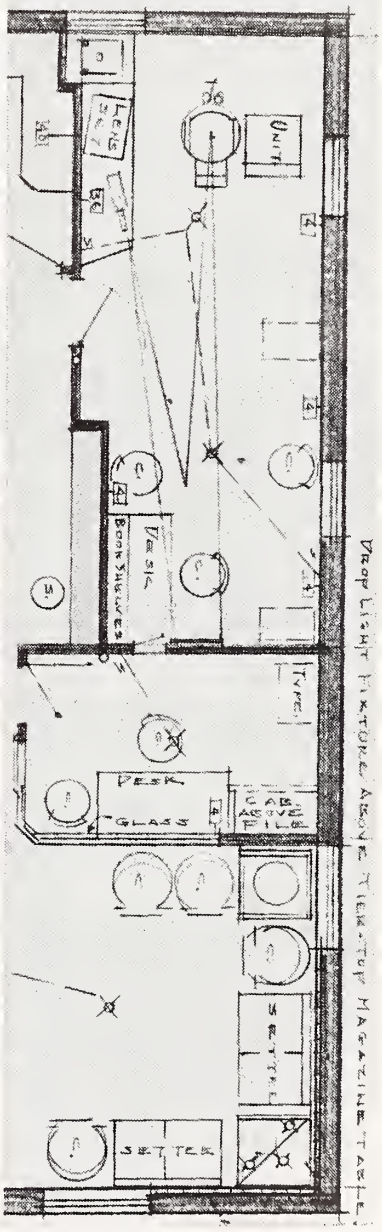

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The Journal
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Supervised by THE COUNCIL
Volume 61 — January 1968 — Number 1

Splenic trauma, not sufficient to cause capsular rupture, will occasionally produce a hemorrhagic cyst.

Splenic Cyst

MAX M. GITLIN, M.D.
WILLIAM A. GITLIN, M.D.
Bluffton

INTRA-ABDOMINAL viscera, such as the kidney, pancreas or ovary, are oftentimes the seat of a cyst, but the spleen is seldom subject to cystic change.

Fowler published a classification of splenic cysts in 1953, at which time he reviewed 265 non-parasitic, benign, splenic cysts. Since his report in 1953, less than 100 additional cases have been reported.

This case report comes under the traumatic classification. The traumatic hemorrhagic variety accounts for approximately 50% of all splenic cysts. The infrequency of the disease plus some unusual features prompts the report of this case seen at the Surgical Department, Wells County Hospital, Bluffton.

Case Report

A 72-year-old white female was admitted to the hospital on September 26, 1966, with an enlarged palpable mass occupying the lower two-thirds of the left half of the abdomen. The patient stated that in March, 1966, she fell over a footstool, striking her left breast and left side of her abdomen on the arm rest of a chair. Subsequently, she felt moderately severe pain in the left side of the abdomen. About a month after the accident, she noticed the left side of her abdomen becoming larger.

About two weeks prior to admission to the hospital, the patient was seen in our office, at which time she complained of pain and fullness in her left side. A cystic mass was palpated in the left mid and lower portion of the abdomen. Upon admission to the hospital, physical examination failed to show any other systemic disease except multiple arthritis of the hands, knees and ankle joints. Blood counts and urine were within normal limits.

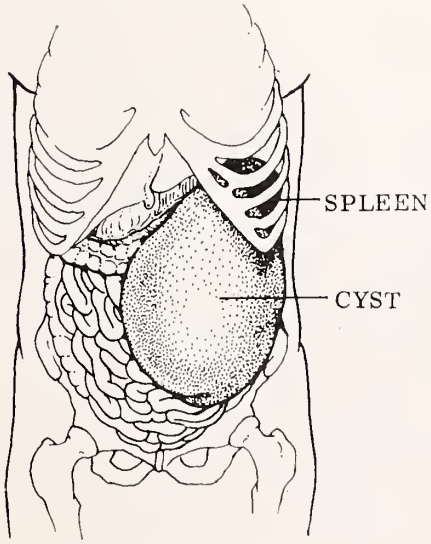

FIGURE 1
CYST of the spleen.

A flat plate of the abdomen revealed the presence of a rather large mass on the left side which overlay the wing of the left ilium. This mass displaced the loops of bowel medially. The origin of the cyst was not determined, although an ovarian or a splenic cyst was considered. The patient was explored on September 27, 1966, and a large splenic cyst was encountered. The cyst could not be detached from the spleen, and a splenectomy was performed.

Morbid Anatomy

The spleen measured 17x10x6 centimeters. There was an attached cystic structure measuring 25x17x8 centimeters. The wall of the cystic mass blended into the capsule of the attached spleen and was continuous with the capsule of the spleen for a considerable distance along the dia-

phragmatic aspect. There was a cavity between the capsule and the splenic surface in this area, and there were superficial areas of apparent hemorrhage. Sections of the spleen revealed numerous trabeculae.

The white pulp consisted of a collection of lymphocytes, usually surrounding central arterioles. In the red pulp, the sinusoids were dilated and congested with red blood cells. The external surface was covered by a thick layer of hemorrhagic material. The capsule was occasionally visible, and where visible, was thickened by cellular collagenous connective tissue. There was also marked subcapsular hemorrhage in some areas.

Sections of the cyst grossly revealed it to contain red blood-tinged fluid, and the wall was yellowish gray to orange in color. The inner surface of the cyst contained fibrinous red brown material.

Microscopic

The cystic wall consisted of a cellular to poorly cellular fibrous and collagenous connective tissue, which was focally freshly hemorrhagic. Large amounts of fibrin and red blood cells were attached to the inner surface. There was no evidence of malignancy.

Her postoperative course was uneventful, and she was discharged from the hospital on the 12th postoperative day. She has been followed in our office since surgery and has remained well.

Summary

A case of hemorrhagic cyst of the spleen and its pathogenesis is presented. There was an interval of six months from date of injury to date of surgery. An exploratory laparotomy and a splenectomy seemed to be adequate treatment for this rare condition, which is becoming more frequent because of the various traumatic conditions to which modern man is subjected. ◀

REFERENCE

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Precautions: The pretreatment physical examination should include special reference to breast and pelvic organs, as well as a Papanicolaou smear. Endocrine and possibly liver function tests may be affected by treatment with ORACON. Therefore, if such tests are abnormal in a patient taking ORACON, it is recommended that they be repeated after the drug has been withdrawn for two months. Under the influence of estrogen-progestogen preparations, pre-existing uterine fibromyomata may increase in size. Because these agents may cause some degree of fluid retention, conditions that might be influenced by this factor, such as epilepsy, migraine, asthma, cardiac or renal dysfunction, require careful observation. ORACON should be used with caution in patients with a history of cerebrovascular accident. In relation to breakthrough bleeding, as in all cases of irregular bleeding per vaginam, nonfunctional causes should be borne in mind. In cases of undiagnosed vaginal bleeding, adequate diagnostic measures are indicated. Patients with a history of psychic depression should be carefully observed and the drug discontinued if the depression recurs to a serious degree. Any possible influence of prolonged ORACON therapy on pituitary, ovarian, adrenal, hepatic or uterine function awaits further study. A decrease in glucose tolerance has been observed in a small percentage of patients on oral contraceptives. The mechanism of this decrease is obscure. For this reason, diabetic patients should be carefully observed while receiving ORACON therapy. Because of the occasional occurrence of thrombophlebitis and pulmonary embolism in patients taking oral contraceptives, the physician should be alert to the earliest manifestations of the disease. Because of the effects of estrogens on epiphyseal closure, ORACON should be used judiciously in young patients in whom bone growth is not complete. The age of the patient constitutes no absolute limiting factor, although treatment with ORACON may mask the onset of the climacteric. The pathologist should be advised of ORACON therapy when relevant specimens are submitted.

Side Effects: The following adverse reactions have been

continued on next page

observed in patients receiving oral contraceptives: nausea, vomiting, gastrointestinal symptoms (such as abdominal cramps and bloating), breakthrough bleeding, spotting, change in menstrual flow, amenorrhea, edema, chloasma or melasma, breast changes (tenderness, enlargement, secretion), change in weight (increase or decrease), changes in cervical erosion and cervical secretions, suppression of lactation when given immediately post-partum, cholestatic jaundice, migraine, rash (allergic), rise in blood pressure in susceptible individuals, mental depression. Although the following have been reported as side effects in users of oral contraceptives, no cause and effect relationship has been established: anovulation post-treatment, premenstrual-like syndrome, changes in libido, changes in appetite, cystitis-like syndrome, headache, nervousness, dizziness, fatigue, backache, hirsutism, loss of scalp hair, erythema multiforme, erythema nodosum, hemorrhagic eruption, itching. Post-marketing experience with ORACON has revealed that hypermenorrhea and acne may also occur. The following occurrences have been observed in users of oral contraceptives. A cause and effect relationship has neither been established nor disproved: thrombophlebitis, pulmonary embolism, neuro-ocular lesions. The following laboratory results may be altered by the use of oral contraceptives: increased sulfobromophthalein and other hepatic function tests; coagulation tests (increase in prothrombin, Factors VII, VIII, IX, and X); thyroid function (increase in PBI and butanol extractable protein bound iodine and decrease in T^3 values); metyrapone test; pregnanediol determination.

Administration: Counting onset of menses as Day 1, the patient starts medication on Day 5 of the cycle and takes one white tablet daily from Day 5 through Day 20, then one pink tablet daily from Day 21 through Day 25. Patients should be cautioned to follow the dosage schedule strictly. Evening administration is suggested. An additional contraceptive method is recommended for the first 7 tablet days of the first cycle of ORACON usage. If the regimen is interrupted, for the fullest possible protection an additional contraceptive method is recommended for the rest of the cycle. If flow should not occur by the 7th day after taking the last pink tablet, the next course of therapy should be initiated on that day, thereby allowing 6 full days without medication. Some physicians prefer to stipulate that the patient never allow more than 6 unmedicated days to elapse between cycles regardless of the time of onset of withdrawal bleeding. If two consecutive periods are missed, the possibility of pregnancy should be considered and the patient should report to the physician. However, pregnancy should be suspected at the first missed period if the patient has deviated from instructions. For those few occasions when breakthrough bleeding occurs, the following recommendations are made: (a) Spotting. Continue medication. (b) Menstrual-type flow. Discontinue medication and begin a new medication cycle on the fifth day. Because of the rarity of frank breakthrough bleeding, especially after the first few cycles, it is not necessary to provide the patient with additional tablets to allow for doubling the dose. Recurring breakthrough bleeding, particularly after the first few cycles, should be reported to the physician for further investigation. Because of the common occurrence of increased cervical mucus, it is recommended that the patient be apprised of this possibility.

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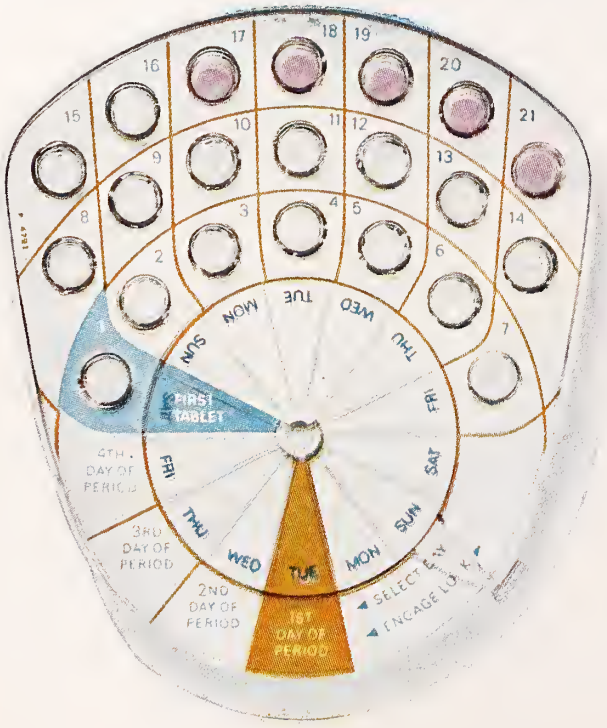

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Preventive and corrective surgical procedures are valuable in alleviating soft tissue deformities of the rheumatoid hand. The earlier a deformity is corrected, the better the prognosis.

Surgery of the Rheumatoid Hand*

ROBERT M. RABER, M.D.
Indianapolis**
HAROLD E. KLEINERT, M.D.
Louisville, Ky.†

MENTE et Manu, mind and hand—the inscription on this crest clearly depicts the functional and psychological importance of the hand which has been well known since ancient times. The finer motions and sensibility of our hands, which are extensions of our intellect, have largely contributed to man's rise above lower animals. Each individual develops his own pattern of movement and expression and this pattern is noted in his hands as well as in his face and posture.

Since the functioning hand is physically molded by the natural unchanging laws of mechanics and dynamics, the bones of prehistoric man and the ancient Egyptian were similar to ours of today.[1] Appreciation and interpretations of the hand's role, however, have varied considerably throughout the ages. Cave dwellers marked their walls and roofs with signs and figures and every tribe or race drew, carved or painted hands with their own distinctive character. There is a hand characteristic of the Gothic period and differences can be noted between early and late Renaissance hands. Great artists such as Rubens, VanDyck, Michelangelo, Leonardo da Vinci, Raphael, Durer and Rembrandt each had his own concept of this structure which is a master of expression though it is often thought to be a slave of action.

Appearance of the hand can vary from the square, puffy appendage of the infant—void of character—to the slender, smooth, graceful hands of the ballerina; the thick, coarse, muscular hands of the blacksmith; and the thin, wrinkled hands of the aged—all revealing considerable character and expression.

Hand function can vary from the delicate accuracy of the micro-surgeon, rapid multiple actions of a concert pianist, strong grasp of a wrestler, and hammer action of a prize fighter—all using information gained by the invaluable sensation in their fingertips.

As physicians and surgeons, it is our obligation to preserve or restore function and appearance of this magnificent organ.

Recent increasing interest in rheumatoid disease of the hands (Figure 1) has lead to surgical technics which will correct or alleviate most of the soft tissue deformities caused by disease.

Pathology

"Rheumatoid arthritis" is now generally recognized to be a continuing systemic disease affecting primarily mesenchymal tissue.

The basic tissue attacked in the hands is synovium which expands from a normal filmy membrane to a thick, florid, villous mass (Figure

FIGURE 1
MULTIPLE hand deformities characteristic of rheumatoid disease.

* Paper presented by Dr. Raber at the Plastic Surgery Section, Biennial Congress, International Congress of Surgeons, September 28, 1966, at Oaxaca, Mexico.

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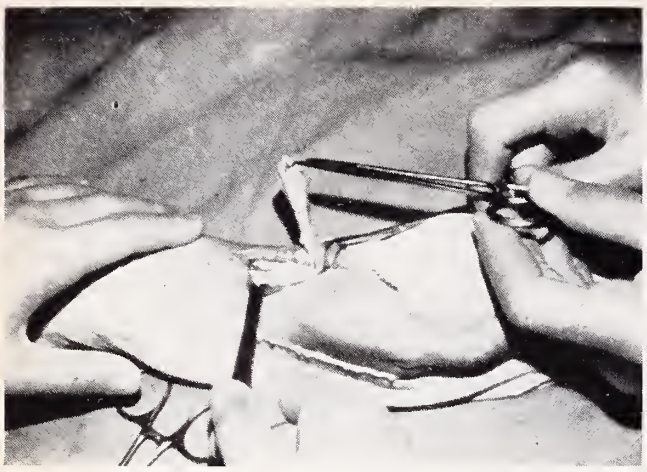

FIGURE 2

DISEASED synovium thickened from a normal filmy membrane.

2). It may invade surrounding tissues directly or cause avascular necrosis from obliteration of blood supply due to pressure of expansion.

Three major sites of involvement (Figure 3) by rheumatoid disease in the hands are the extrinsic tendons, intrinsic muscles and joints. Tendons become affected only if they are covered by synovium and synovium surrounds tendons only where their direction of pull changes as they cross over a concave surface. Disease does not occur in tendons covered by paratenon. Extensor tendons become involved as they pass through the non-yielding tunnels formed by the extensor retinaculum and flexor tendons are similarly affected in the carpal tunnel and digital sheath pulleys.

THREE MAJOR LOCATIONS
OF
RHEUMATOID DISEASE IN THE HAND

1) EXTRINSIC TENDONS
2) INTRINSIC MUSCLES
3) JOINTS

FIGURE 3

FIGURE 4

TRIGGER FINGER: Fourth finger in extension showing thickening of the diseased synovial membrane within the proximal finger pulley. Finger in flexion reveals nodule in flexor tendon secondary to pressure of diseased pulley synovium or primary disease in tendon.

Inflammation, degeneration, and scar brings shortening of the intrinsic muscles and swollen joint synovium leads to destruction of its supporting structures and overlying tendons, causing joint subluxation and dislocation. Arthritis or joint surface erosion and destruction occurs late in the process. Consequently, this malady should probably be called rheumatoid disease rather than rheumatoid arthritis.

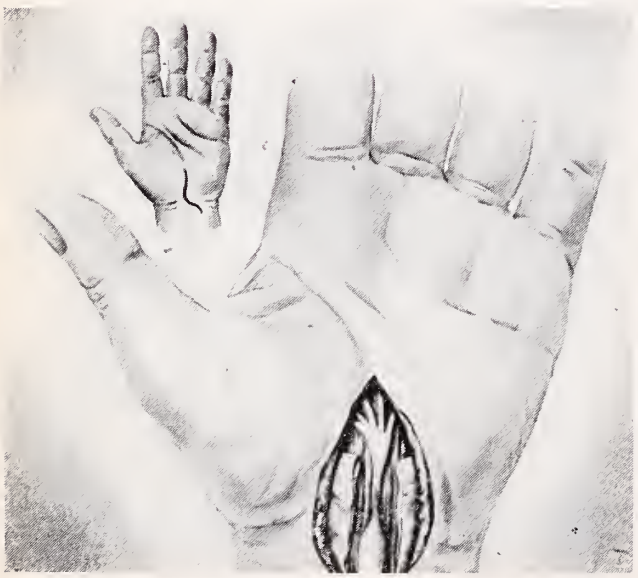

FIGURE 5

CARPAL tunnel opened and synovium removed from flexor tendons to reveal compressed median nerve. Small insert indicates line of incision.

Hand Deformities Resulting from Rheumatoid Disease

Trigger Finger or Thumb—Snapping of an involved digit during flexion or extension (Figure 4) is due to a nodule in the flexor tendon slipping by an area in the flexor sheath which has been narrowed by synovitis disease. A mass will often be palpated over the metacarpopha-

langeal joint in the palm.

Hydrocortisone injections into the sheath may improve the problem temporarily but surgical excision of a portion of the sheath is usually necessary for permanent relief.

Carpal Tunnel Syndrome—Synovitis about the nine flexor tendons as they pass through the unyielding dimension of the fibro-osseous carpal tunnel produces pressure on the accompanying median nerve (Figure 5).

Pain in the hand often awakens the patient at night. He seeks relief by vigorous hand motions which improve the circulation and thus rids the hand of pressure-forming edema of venus stasis resulting from the inactive hand. Tingling in the radial side of the hand may be noted early, but wasting of the thenar muscles and persistent numbness are late signs of median nerve palsy.

Increased symptoms reproduced when the patient flexes the wrists and fingers is known as Phalen's sign [2](Figure 6). Paresthesia in the hand produced by tapping over the compressed median nerve at the wrists is a positive Tinel's sign[3] (Figure 7).

Surgical decompression of the nerve at the wrist, if accompanied by a complete synovectomy of the flexor tendons, removes the source of trouble and usually gives immediate. dramatic and lasting relief.

Boutonniere Deformity—Slow insidious destruction occurs in the central slip of the extensor tendon and transverse fibers of the extensor mechanism which normally holds the lateral bands of the intrinsic muscles in their normal relationship dorsal to the proximal interphalangeal joint. The lateral bands dislocate palmarward (Figure 8) and flex rather than aid extension of the joint. The flexed joint is pushed through the thinned central slip of extensor tendon and separated lateral bands like a button being pushed through a buttonhole. The resultant abnormal

FIGURE 6
PHALEN'S SIGN—reproduction of symptoms with wrist and finger flexion.

FIGURE 7
TINEL'S SIGN—reproduction of symptoms by tapping over a compressed median nerve at the wrist.

FIGURE 8
BOUTONNIERE DEFORMITY—Thinned extensor mechanism allows volar displacement of the lateral bands resulting in flexion of proximal interphalangeal joint, and hyperextension of distal joint.

FIGURE 9
SWAN-NECK DEFORMITY—Shortening of the intrinsic mechanism produces flexion of the proximal finger joint, extension of the middle finger joint and flexion of the distal joint.

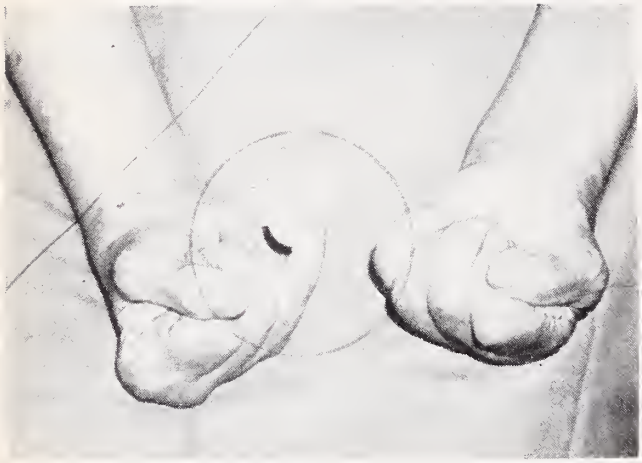

FIGURE 10
MALLET FINGER—Rupture or stretching of the conjoined extensor tendon in the region of the distal joint allows this flexion deformity (encircled).

FIGURE 11
SWELLING of rheumatoid synovial disease in metacarpal phalangeal joint.

tension on the lateral bands at their insertion produces a hyperextension deformity of the distal joint.

Early synovectomy can prevent this destruction. Once formed, the deformity is difficult to correct. Surgical procedures available include: (1) synovectomy with free tendon grafting to replace the destroyed central tendon slip and replacement of the lateral bands, (2) tenotomy of the extensor tendon near its distal phalanx insertion, thereby improving the imbalance of tendon forces, and (3) fusion of the joint.

Ruptured Tendons—Pressure on tendons as they pass through a diseased flexor carpal tunnel or under the extensor retinacula can cause obliteration of blood supply and ultimate tendon necrosis. Disruption can also occur in a tendon weakened by a rheumatoid nodule within its structure, by direct invasion of synovial disease, and from attrition as it passes over the sharp bony edge of a diseased joint.

Repair of the ruptured diseased tendon by primary end to end anastomosis is usually impossible. Tendon grafts can be employed to bridge the gap if fibrotic contracture has not occurred in the proximal muscle. Better results are usually obtained, however, by transfer of motor tendons which can be spared. Units most often used are the extensor indicis proprius, extensor carpi radialis longus, extensor carpi ulnaris and brachioradialis.

Swan-Neck Deformity—Flexion of the proximal finger joint, extension of the middle joint, and flexion of the distal joint characterizes this disasterous deformity (Figure 9). It is caused by shortening of the intrinsic mechanism and is often referred to as an "intrinsic plus" condition.

The delicate normal muscle balance in the finger is disturbed by inflammatory and degenerative changes occurring in the intrinsic muscle "bellies." Muscle spasm occurs early in the disease but shortening later becomes permanent with fibrous contracture.

Testing a patient with an "intrinsic plus" disease reveals inability to passively flex the distal finger joints while holding the proximal joint in extension. The examiner first determines that joint and tendon pathology do not exist by passively flexing all three finger joints.

Improvement of early intrinsic contracture can be obtained by excision of the oblique fibers of the extensor hood. Function is preserved through the intact vertical and transverse fibers of the extensor tendon mechanism.

Severe intrinsic muscle disease with secondary flexion contracture of the proximal joint requires a more vigorous surgical approach, including excision of the contracted membranous portion of the palmar plate and separation of the intrinsic muscle

insertions on the proximal bony phalanx.

Mallet Finger—Rupture or stretching of the conjoined extensor tendon as it passes over the distal joint produces a flexion deformity (Figure 10) known as mallet finger. It can be caused directly by joint synovitis, or indirectly by the strong pull of the flexor profundus muscle which overpowers the weaker extensor mechanism in the associated "intrinsic plus" or swan-neck deformity.

Early preventative synovectomy and "intrinsic plus" correction should give good results. Reconstructive efforts for the advanced deformity may include tendon shortening, tendon graft, tenodesis and arthrodesis.

Ulnar Drift—The normal hand has many balanced forces holding it in its functioning position and many factors have been indited as the cause of ulnar drift.

Recent studies[4,5] seem to verify the hypothesis that the deformity of ulnar drift represents an accentuation of normal hand conditions. Lateral sloping contour of the second and third metacarpal heads, greater length of all radially placed collateral ligaments and ulnarly placed flexor tendons to the index and middle fingers allow the hand to function normally in small degrees of ulnar deviation. Ligamentous destruction and muscle weakness by rheumatoid disease disrupts the normal balancing forces and allows the accentuation. Extrinsic extensor tendons normally on top of the metacarpophalangeal joint subluxate into the valleys on the ulnar side of the metacarpal heads and act to self-perpetuate the condition.

Ulnar drift has a very insidious onset but its ultimate development can be suspected in patients with swelling of synovitis in the metacarpophalangeal joints (Figure 11) and with weakness of the first dorsal interosseous muscle as is seen with a weak pinch of thumb against the radial side of the index finger. X-ray study may show a slight shift of the proximal phalanx of the index finger toward the ulnar side of the metacarpal head.

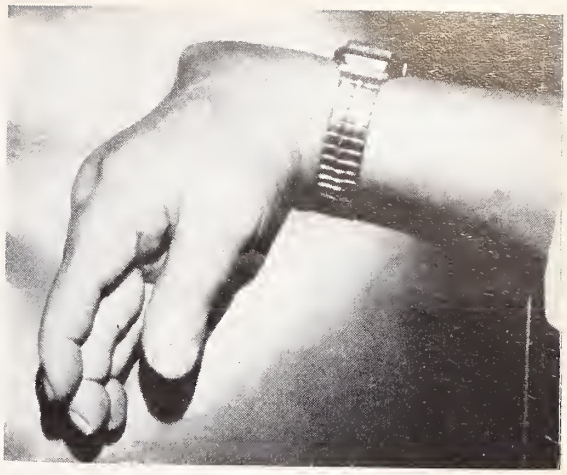

FIGURE 12
ADVANCED wrist flexion due to rheumatoid disease.

Early synovectomy coupled with a tightening of lax joint ligaments, repositioning of extrinsic extensor tendons, and tendon transfers using extensor indicis, extensor digiti quinti and more recently, interosseous tendon transfers, can give excellent long term results.

Wrist Disease—Radioulnar and carpal joints are often affected with synovitis and the early result is wrist flexion into a nonfunctional position. Grasp is weakened due to diminished excursion and power of the digital flexor muscles.

Progressive disease leads to joint destruction. The distal ulna subluxates dorsally and may cause attrition rupture of the overlying extrinsic extensor tendons. Sharp bony spicules in a diseased ulna may hasten the rupture.

Unfortunately, complete prophylactic synovectomy of these joints is difficult so that splinting and exercise is usually required to help prevent flexion contracture of the wrist.

Surgical correction of advanced wrist deformities (Figure 12) include excision of the distal ulna, carpectomy and wrist fusion.

Multiple Deformities—Often in a period of a very few months, this insidious disease can progress and include all of the above deformities as well as flexion contracture of the metacarpophalangeal joint, severe dislocation of the proximal phalanx into the palm and destruction of the bony metacarpal head. This grotesque appearing hand is almost functionless.

While reconstructive surgery at this late stage is unable to resurrect a normal hand, patients are grateful for the amount of function and improved appearance obtained.

Discussion

Physicians, in general, are not aware of the help that prophylactic and reconstructive surgery can give unfortunate patients with rheumatoid disease of the hand. To follow the ancient dictum of wait until the disease has "burned itself out" is not correct. An elevated sedimentation rate is no longer a surgical contraindication. External splinting and muscle exercises seemingly help patients in the early phases of disease but undue time spent with their use without surgery often allows destruction to progress insidiously to a point which soon is irreversible.

Preventive surgical excision of the thickened "cancerous" synovium can bring about lasting, excellent results if accomplished before secondary tissue destruction has developed. This follows the old adage of "locking the barn door *before* the horse is stolen." Indications for surgery include persistent swelling, early

joint deformity and increasing discomfort, all of which signify a rapid progression of synovial involvement (Figure 13).

Extensive attempts at chemical synovectomy with drugs such as Thiotepa or nitrogen mustard have been discouraging. Hydrocortisone joint injections give temporary relief as does parenteral use of a steroid but many physicians now believe that steroid therapy actually increases muscle fatigue and joint structure weakness, thus ultimately increasing rather than preventing deformities.

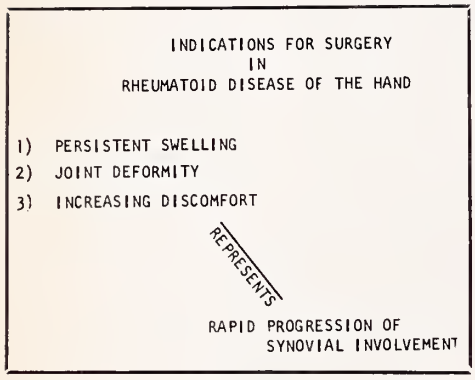

FIGURE 13

For those individuals who have passed through the precious hours while damage is developing and already have established deformities, secondary reconstructive surgery can offer amazing improvement in hand function with improved appearance as a dividend.

Summary

An explanation as to the pathology and nature of the numerous hand deformities seen in patients with rheumatoid disease is given.

The logical conclusion is to recommend surgery early in the course of the disease so as to prevent tissue damage and resulting deformities.

If a crippling deformity has already developed, reconstructive surgery can offer at least partial recovery of hand function and considerable improvement in appearance.

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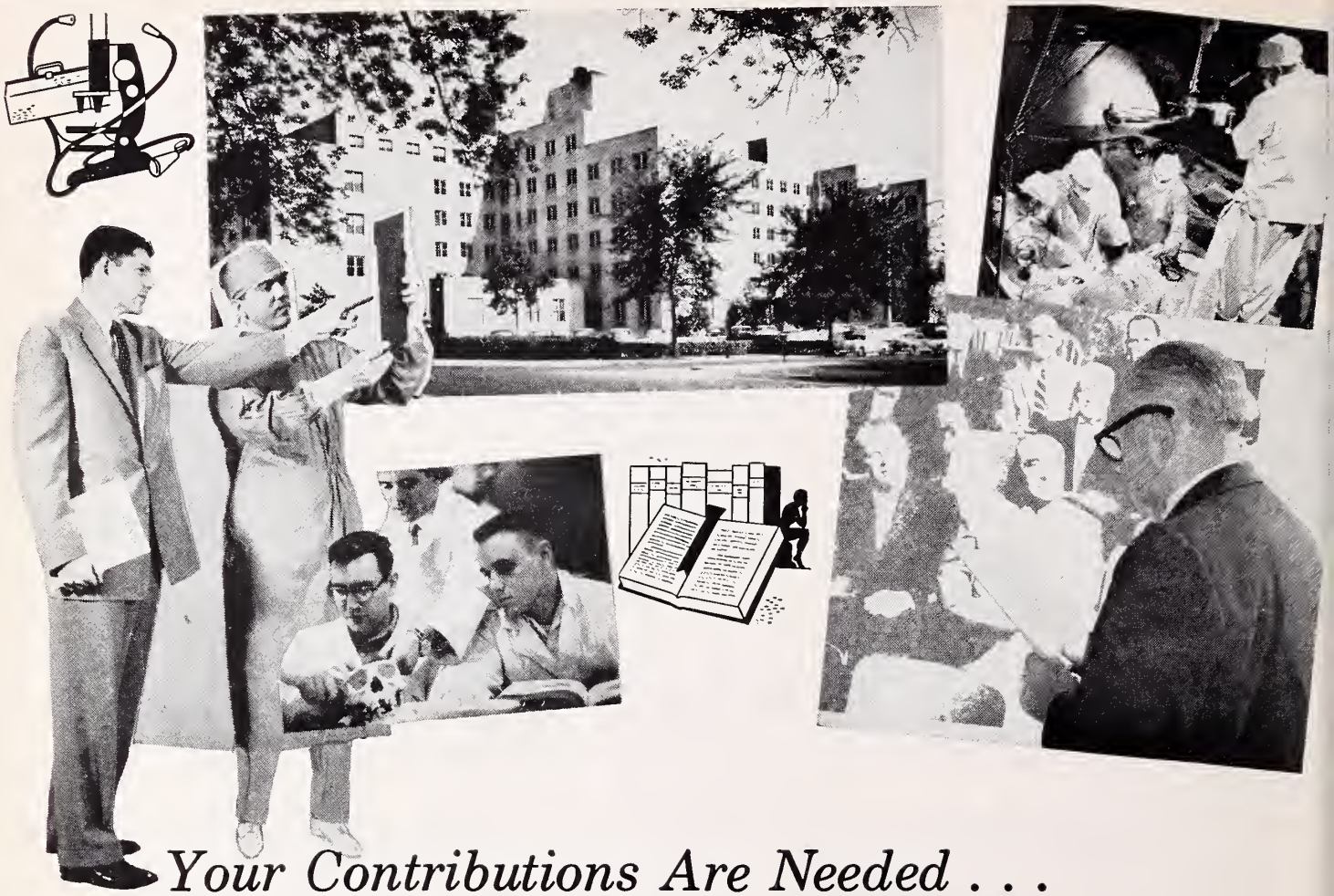

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this issue: the cold in pregnancy...

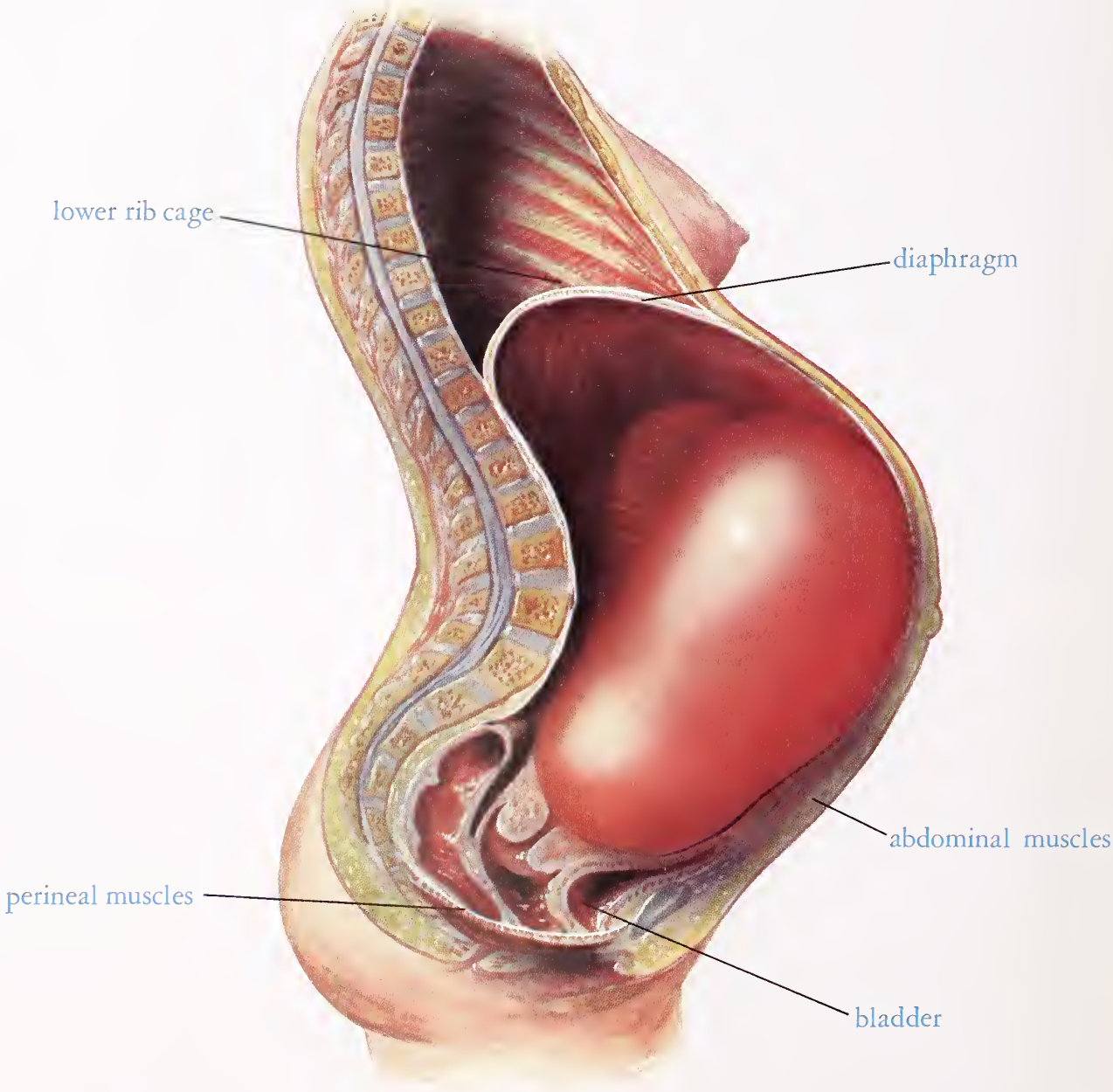
the cold in pregnancy

Frederick W. Goodrich, Jr., M.D.
Senior Obstetrician and Gynecologist, Lawrence and Memorial Hospital, New London, Connecticut

Since pregnancy and the common cold are both ubiquitous, it is not surprising that they often occur at the same time in the same patient. Incidence figures are hard to come by, but the chances are very good that any given pregnant woman will have a cold at some time during the nine months of her gestation. When she does, she will tell you that it is the worst cold she ever had. It seems to last longer and the symptoms are more distressing than they are in the non-pregnant.

For purposes of this discussion, the common cold is considered to be the well-known symptom complex which includes sore throat, stuffy nose, and a cough. Febrile states or extension of the disease process into the lower respiratory tree are not part of the common cold and will not be included in this discussion.

the clinical picture of a cold in pregnancy can be confused by a long-known physiological phenome-



non. Kiesselbach's area in the nose (on the anterior part of the nasal septum above the intermaxillary bone) becomes engorged, apparently due to hyperemia induced by the increased estrogen level which accompanies pregnancy. The amount of congestion can vary in degree from woman to woman. Some have very little congestion, others will have occasional nosebleeds from this area, still others will have symptomatic congestion to the degree that they will complain of having a "chronic" or constant cold.

Less well recognized is the occurrence of this type of hyperemia in any part of the nasopharyngeal mucosa, again in varying degree. Such swelling often produces a postnasal drip which, the patient will state, is present only when she is pregnant. Patients who do not have symptomatic congestion ordinarily, will find that when they do get a cold, the symptoms last much longer than those of a cold usually do. Occasionally, this hyperemia is responsible for closure of the medial end of the Eustachian tube; such patients will complain of "plugging" of the ears. Inspection of the ear drum will show a depression which confirms the presence of Eustachian closure rather than wax in the canal which is the patient's diagnosis. Symptoms related to this physiological congestion are more apt to occur in heavier smokers or those who have a history of allergic rhinitis, just as are the symptoms of the common cold. And when the cold does occur in pregnancy, the symptoms are worse because of the underlying congestion.

The pregnant woman with a cold is miserable for other reasons, dependent somewhat on her parity and the length of her gestation. As parity increases, so also does the relaxation of the abdominal and perineal musculature. The uterus, lying against a slack abdominal wall, and bearing down on relaxed perineal muscles, acts like a piston when the patient coughs, sneezes, or even blows her nose, pushing down on the bladder. Stress incontinence during colds is almost the rule.

As the length of gestation increases, so does the size of the uterus. As it grows, it pushes the abdominal contents above it and elevates the diaphragm. This results eventually in a lateral displacement of the lower rib cage, often to a point at which the patient will complain of soreness in this area. If such a

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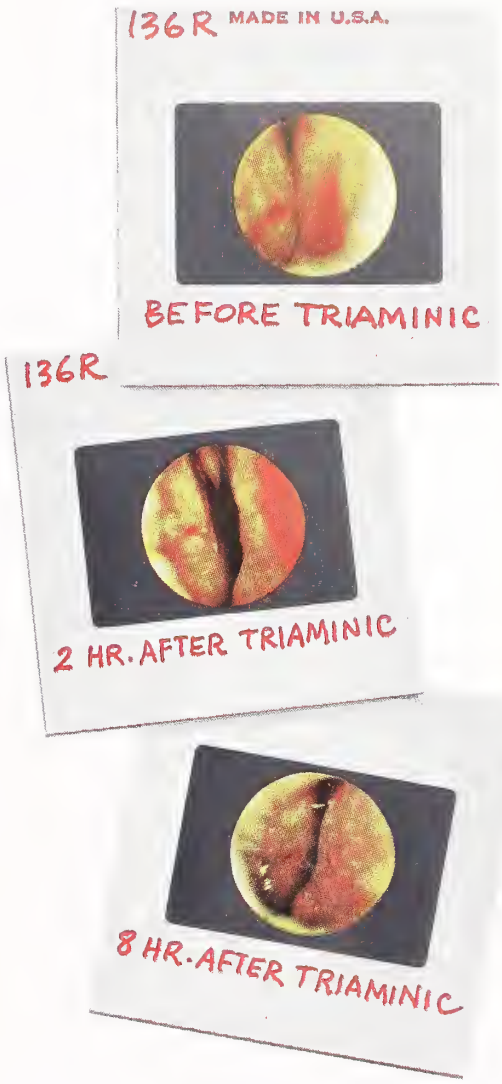
From a continuing study on nasal congestion...



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Each timed-release tablet contains:

Phenylpropanolamine hydrochloride	50mg.
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Side effects: Occasional drowsiness, blurred vision, cardiac palpitations, flushing, dizziness, nervousness or gastrointestinal upsets. Precautions: The patient should be advised not to drive a car or operate dangerous machinery if drowsiness occurs. Use with caution in patients with hypertension, heart disease, diabetes or thyrotoxicosis.

(Advertisement)

patient has a cold, the coughing and sneezing will exaggerate this soreness. The diaphragmatic restriction caused by the enlarging uterus also makes breathing more difficult, particularly when the patient lies down. A cold compounds this difficulty.

Treating a cold in pregnancy requires two additional considerations. The patient should be told that the symptoms may last longer lest she become discouraged, and she should be reassured that the treatment will not damage the fetus. Although there are still some women who seem blissfully ignorant regarding matters of health (and these need to be cautioned not to take medication recommended by friends), most of our maternity patients are aware of the thalidomide tragedy. These women need constant reassurance that the symptoms of a cold can be treated, and that the medication is safe. Fortunately, many of the drugs which are of benefit have been in use long enough and widely enough so that such a statement can be offered. Occasionally one encounters a patient who is so anxious to avoid medication that she is extremely reluctant to take anything at all. Since cold is self-limited, it seems reasonable enough to give such a patient the choice and not to force drugs on her if she is obviously afraid of taking them.

The most distressing symptom of the common cold is the nasal congestion. This can be mitigated by the use of a decongestant which will help reduce the postnasal drip and the coughing caused by it. The kind of a cough which is described as a "tickling" in the throat and which is apt to occur when the patient goes to bed is usually due to nasopharyngeal congestion rather than inflammation in the lower respiratory tract.

There are many cough mixtures available. Most contain an antihistamine, a decongestant, and a cough "suppressant." Should cough suppression be desirable, it is important to remember not to use both a decongestant tablet and such a cough mixture as the patient would be getting a double dose of the decongestant. With some patients, the placebo effect of a cough syrup may be important and a liquid preparation might be substituted for an oral tablet.

For a sore throat, candy drops or lozenges at frequent intervals are soothing. It is not only unnecessary but unwise to use antibiotic lozenges or drops. The use of antibiotics in an uncomplicated cold is contraindicated and should be scrupulously avoided.

In summary, a cold in pregnancy is more severe and longer lasting. The treatment of the symptoms with local and systemic decongestants will make the patient more comfortable.

Apparently the cold is so common in pregnancy that it has received very little attention in the literature. References are almost non-existent and the few which are available add little to the common knowledge, are out-dated, or are not helpful. Thus the usual bibliography is not appended.

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CLINICOPATHOLOGIC CONFERENCE

Case No. A-10, 516

A 37-year-old married white female was referred to Long Hospital in February of 1962 for use of the artificial kidney. The patient's last normal menstrual period was in October of 1961; and although she had scanty periods in November, December and January, she did not realize she was pregnant. On February 11, she developed cold symptoms with a mild cough, and she took a few "4-Way Cold Tablets." The following morning she spontaneously aborted: a three-month size fetus and some placental tissue were observed by her physician. She refused hospitalization, so was treated at home with ergonovine maleate (Ergotrate), oxytetracycline and a single injection of benzathine penicillin G (Bicillin).

On February 15, she became acutely ill with fever and chills, so was admitted to her local hospital. At time of admission she was afebrile, but experienced severe aching legs pains, scanty and "bloody" urination, mild dyspnea, weakness, minimally severe cramping, lower abdominal pain and vaginal bleeding with the passage of clots. She was said to be plethoric, and a "diffuse, reddish cyanosis" covered her face. Respiration was moderately labored and shallow, and moist inspiratory and expiratory rales were heard over the entire right lung, though percussion was resonant. The neck veins were markedly distended, but cardiomegaly, gallops and murmurs were absent. The pulse was 100. The abdomen was quite distended and diffusely tender. Bowel sounds were normal and no masses nor organomegaly were noted. The costovertebral angles were tender bilaterally. Vaginal bleeding was present. The uterus and adnexa were not palpable externally and an internal vaginal examination was not performed.

Hemoglobin was 7.1 gm %; hematocrit was 16. The white blood cell count was 27,300 with 38% bands, 57% neutrophils and 5% lymphocytes. The urine was black, cloudy and alkaline, with 4+ albumin, trace sugar, negative acetone and containing several red blood cells. NPN was 60 mgm. %.

The patient received whole blood transfusions, oxytocin (Pitocin), penicillin and streptomycin (Durycin), tetracycline (Achromycin) and methylprednisolone (Solu-Medrol). The next day the white blood cell count had risen to 64,000 and the 24-hour urine volume was 125 cc. She was transferred to Indiana University Medical Center.

Past medical history was non-contributory except for four previous normal pregnancies and deliveries.

At the time of admission to IUMC, she was acutely ill and febrile to 101° (rectal). Blood pressure was 125/75, pulse 90. A "brownish-red, dusky" color was noted over her skin, particularly over her face. Icterus was questioned. Her lips and fingernail beds demonstrated slight cyanosis. The neck was supple. Neck veins were not distended. Cardiac and chest examination were unchanged. The abdomen was normal. A pelvic examination demonstrated dark blood coming from the cervical os. The cervix was large, soft, blue and dilated by a clot. No fresh bleeding was observed. The uterus was slightly enlarged but not tender. The adnexa were normal. No mass was found, nor tenderness elicited.

Laboratory studies on admission were not significantly different from those recorded by the referring hospital, except that the blood samples were said to be hemolyzed, a colorimetric determination suggesting that 2.5 gm % hemoglobin was free in the serum with a hemoglobin level of 8.5 gm %. Fifteen nucleated reds/100 WBC were found. Platelet count was 59,000 and never exceeded 86,000. Coomb's test was negative. Hematuria, varying proteinuria and dark brown urine were consistently described, but no casts were even seen. BUN was 57 mgm %. Sodium was 144 mEq, potassium 4.6 mEq, chloride 94 mEq, and CO_2 30.7 mEq per liter. Fibrinogen was 300 mgm %. Prothrombin time was less than 10%. Chest films repeatedly demonstrated minimal, bilateral pleural effusion, but were otherwise normal. KUB demonstrated a pelvic mass (presumably an enlarged uterus), ileus, but no free gas. Blood cultures, both aerobic and anaerobic, never disclosed a growth. Cervical cultures grew gram positive cocci (non-hemolytic streptococci and coagulase positive *Staphylococcus aureus*) and gram positive bacilli which were aerobic, but not further identified. Urine cultures were initially negative, though late in the hospital course grew *Paracolon*.

The patient received large doses of penicillin, chloramphenicol, Achromycin, hydrocortisone and tetanus

FIGURE 1
THE chest x-ray is essentially normal.

FIGURE 2
THE lateral chest x-ray, taken ten days after admission, reveals fluid in the major fissure.

antitoxin and gas gangrene antitoxin. Her temperature remained elevated to 101-102° throughout her hospital course. On the third hospital day, total hysterectomy was performed. The tissues were noted to be edematous and discolored gray. Cultures from the uterus were negative. Because of oliguria, with a urine output never exceeding 50 cc/day, and a BUN rising to 180 mgm %, peritoneal dialysis was instituted and continued throughout the remainder of the hospitalization. The patient seemed to improve, but on the fifth hospital day experienced a generalized convulsion. No neurologic signs were demonstrated. A lumbar puncture was performed, and the cerebrospinal fluid was xanthochromic, with 1000 RBC and 1 WBC; trace (Pandy) globulin; culture revealed no growth. The patient continued to be confused and received diphenylhydantoin (Dilantin) and amobarbital (Amytal). The remainder of her hospital course was a period of rapid deterioration, with confusion and semicoma, a tracheostomy for tracheobronchial aspiration and assisted ventilation, and, on the eleventh hospital day, hypotension requiring vasopressors throughout the remainder of the two week hospital course. She was temporarily resuscitated from a cardiac arrest on the 14th hospital day (March 2), but later developed asystole and was pronounced dead.

CASE DISCUSSION

DR. HUNTER A. SOPER: We are pleased today to introduce for our first CPC discussion Dr. Arthur C. White, a professor in the Department of Medicine and Chief of the Infectious Disease Division. We are going to proceed now with the x-ray findings. Dr. Roscoe Miller will discuss the x-rays.

DR. ROSCOE MILLER: Thank you very much. The first is a chest x-ray, and it is essentially normal (Figure 1). If one looks carefully, there is a neural arch defect of T-1, a congenital anomaly of no clinical significance. There is no free gas in the abdomen; therefore we have some evidence that there is not a perforated viscus. The next film is of the lateral chest taken ten days later, and one can notice fluid in the major fissure (Figure 2). This was not put on the x-ray report at the time, but there is fluid in the major fissure, so the patient does have some pleural effusion. There again is no evidence of pneumoperitoneum or perforated viscus. There is a considerable amount of gas in the stomach

and some in the small bowel.

The next film is the A-P view showing the tracheostomy tube in place, again an elevated diaphragm showing some distention of the abdomen, and gas in the stomach (Figure 3). Now we will go to the first film of the abdomen, taken ten days previously to that last chest film taken near the date of admission, and again one sees here no evidence of pneumoperitoneum or free gas (Figure 4). One does see some distention of the bowel, both small and large, representative of paralytic ileus. There is a water tissue density in the pelvis, which is probably uterus but cannot definitely be identified as such. The next film shows, then, increasing distention of the small bowel and colon, again indicative of paralytic ileus but again no evidence of a perforated viscus (Figure 5). In summary, we have films of the chest showing accumulations of fluid over a period of ten days and no evidence of a perforated viscus or acute abdominal catastrophe of that nature. In the last film the uterus does not show; presumably it has been removed from a surgical viewpoint. Are there any questions now from the floor?

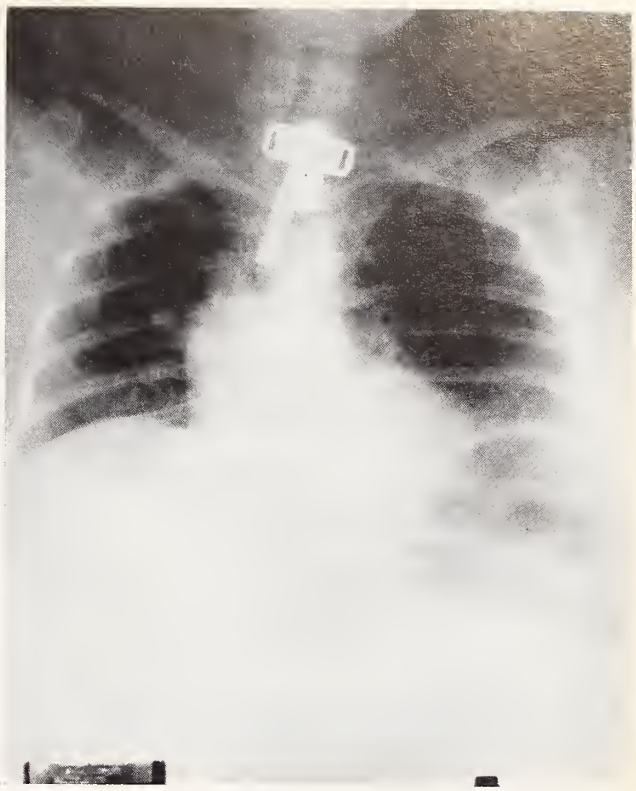

FIGURE 3
THE A-P view reveals an elevated diaphragm showing some distension of the abdomen and gas in the stomach.

FIGURE 4
INITIAL film of the abdomen shows no evidence of pneumoperitoneum or free gas.

A PHYSICIAN: Could you see gas in the uterus with the overlying gas in the small bowel?

DR. MILLER: The answer to that is yes and no; it depends entirely upon the amount of gas in the uterus. There is a characteristic pattern to gas in the uterus from gas infection. We have some very large ones, as big as a football, some somewhat larger. This is a very mottled type of gas pattern and is very distinctive from that in the bowel; however, in this case there was none, and I looked for it carefully. It merely means that there is not a large amount of gas in the uterus. It does not mean there are no gas-forming organisms there; they just have not produced enough gas to show on the x-ray.

Any other questions from the floor? If not, then this is about all I have to offer at this time. This is not a good radiological case.

DR. ARTHUR C. WHITE: Thank you Dr. Miller. I am afraid this is not a great deal of help to me in establishing my diagnosis, so we will have to go on to the other evidence we have, both on the clinical and laboratory side. If one follows the history, the important things seem to be that the patient was pregnant three to four months and then

FIGURE 5
FINAL x-ray reveals accumulations of fluid but no evidence of perforated viscus.

aborted, apparently spontaneously; at least we have no history that the patient manipulated the uterus in any way. Following the abortion, however, there was the onset of signs and symptoms which I think suggest infection, that is, fever and chills, and shortly thereafter the appearance of what was called bloody urine. Whether or not this was bloody we will talk about later. Fairly rapidly thereafter the patient deteriorated with the onset of dyspnea, marked oliguria which progressed to essentially anuria, that is, less than 50 cc per day, and associated with this, initially, she had cramping abdominal pain, although this is not mentioned later in the protocol. The very pertinent laboratory data which I think we do have to explain, are, first she did have a marked leukocytosis which varied from time to time but did go up to a total count of 64,000 per ml. She had a consistent thrombocytopenia, platelet counts of around 57,000 and she had a marked anemia, that is, a hemoglobin of 8.5 on one occasion. More striking and somewhat more unusual is the fact that she also had a marked increase in the amount of free hemoglobin circulating in the system, which was mentioned as being 2.5 gm %. This is further substantiated by the fact that her hematocrit level was much lower than actually her hemoglobin level. Her hematocrit was 17 at the time her hemoglobin was 8.5, again suggesting that she had a large amount of hemoglobin not associated with circulating red cells. Associated with this marked hemolytic anemia, then, she also had the evidence of bone marrow trying to respond to this, that is, with a marked outpouring of nucleated reds per 100 cells. And finally with progressing anuria over a period of time her BUN rapidly rose, and she did develop a BUN at one time up to 180 mgm % before peritoneal dialysis was started. And finally one finding was a prothrombin time of less than 10%. We are also told in the history that the patient appeared to be jaundiced on one occasion, but we are not given bilirubin levels; we are also told that she had a peculiar type of dusky reddish appearance, and finally the urine, which was originally called bloody and which I think to a large extent was free hemoglobin actually going into the urine, became dark and black, which I interpret as the fact that this was further broken down and methemoglobin was appearing in the urine as well as hemoglobin itself.

Well, then, the initial event in this history appears to be that the patient had an abortion and with the abortion, I think she developed some type of sepsis, probably in her uterus.

There are a number of organisms which we know are responsible for sepsis after abortions or puerperal sepsis after delivery. I'll try to see how these may fit into the clinical picture which our present patient had. Before the days of antibiotics, although to a lesser extent at the present time, the group A beta hemolytic Streptococcus was thought to be responsible for most puerperal sepsis. This organism was responsible for severe septic disease with marked chills and fever, marked abdominal tenderness of the uterus associated with rapid spread into cellulitis, thrombophlebitis, and before antibiotics, oftentimes death. With, however, the advent of penicillin, and with the fact that the group A Streptococcus has remained sensitive to penicillin, this organism has become less important both in terms of its frequency and certainly much less important in terms of difficulty of treatment.

The second group of organisms—the group B Streptococci—have been recognized only within the past several years as being an important cause of puerperal sepsis. They may or may not be hemolytic, and therefore on growth plate may or may not look like group A Streptococci. Their importance, however, is that they are somewhat more resistant than the group A Streptococci to penicillin and therefore are not as easily or adequately treated with penicillin itself.

The third group — coagulase-positive Staphylococci — are of importance in this type of abortion or puerperal sepsis. They tend to cause abscess formation here as they do in any other site where they occur,

and they also obviously are of importance because they are oftentimes largely drug-resistant. Any of these gram-positive organisms could have caused the marked chills and fever, could have been associated with the leukocytosis, and with severe sepsis, could have been responsible for the thrombocytopenia. There are too, however, the clinical manifestations which we cannot explain well on the basis of infection with these organisms. The first of these is the marked hemolytic anemia which developed with high levels of circulating free hemoglobin, first in the blood, then in the urine, and with the appearance of what I believe was methemoglobin, also in the urine. In addition, these organisms, even in a severe sepsis, are very rarely associated with anuria. The only way in which they could have done this, that I am aware of, is if there was marked associated shock with the septicemia, and the anuria being renal shut-down secondary to shock. We have no documentation of shock, and since we cannot explain either the hemolytic anemia or the anuria on this basis, I will ignore this and believe that the first three organisms were not responsible.

We can turn, then, to the last organisms — the Bacteroides. This is a gram-negative infection which differs from most of the gram-negative bacteria we are aware of, that is, the *E. coli*, Aerobacter, and Pseudomonas, in that it is usually anaerobic or at least macro-aerophilic and therefore does not grow well in the ordinary culture media which we utilize. It and the *E. coli* and the Aerobacter obviously can be associated with endotoxin shock, and sepsis with Bacteroides and sepsis with the gram-negative organisms in general can cause thrombocytopenia, can cause shock and can cause anuria. They could also be responsible for the marked leukocytosis that we saw. They do not again explain, to my mind, either the marked hemolytic anemia which this patient had, and in the absence of documented shock, I do not think we can explain the anuria. So we are left with this group of organisms with one, called *Clostridium welchii*, which has also been called *Clostridium perfringens*, which I believe is well known to be a cause of puerperal sepsis and which also is well known to give many of the clinical manifestations of the disease that this patient had.

The clinical manifestations of postabortal septicemia, or toxemia due to clostridial disease in 75 cases, have been reported in the *American Journal of Obstetrics and Gynecology*, 70:604, 1955. The sequence of events in most instances there was abortion occurred and was usually self-induced under unsterile conditions, was then associated with infection of the uterus, and the clinical manifestations were as those you see on the slide and the relative percentages there. In the first place, icterus was a prominent characteristic of the disease, occurring in about 92% of their cases, thrombocytopenia occurred in about 50% of their cases, but the most striking abnormality, and almost a specific one, was a marked hemolytic anemia with a fall in the red blood cell count of usually between 300,000 and 600,000 daily, and in many instances went up as far as 2,000,000 fall in red count per day for the first two days. Associated with the marked breakdown of red cells there was a hemoglobinemia, and a hemoglobinuria, and finally anuria developed in about 30% of the cases. So the clinical picture, as we see it, is certainly perfectly compatible with, and as a matter of fact is almost strongly suggestive of, a postabortal sepsis due to one of the Clostridia species.

The Clostridia do produce a large number of toxins; most of these apparently are not terribly important in terms of human disease, but the major toxin produced by this group of Clostridia is what is called the alpha-toxin. This is a lecithinase; in the case of *Clostridium welchii* it is a lecithinase C, or it might be more properly called a phospholipase that is, it splits phosphate bonds and liberates phosphocholine. It therefore in vitro is markedly active against the red cells of man and many other species, causing a marked hemolysis. It is also markedly necrotizing in experimental animals. As you recall, the toxins of the Clostridia group in general are some of the most potent toxins we have. Certainly, the toxin of *Clostridium tetani* and toxins of botulism will kill man or small animals in extremely small doses. Similarly, the alpha toxin of *Clostridium welchii* is extremely potent, although not quite as potent as the toxins of either botulism or *Clostridium tetani*, but about 10,000 minimum lethal doses for mice are present in a single milligram.

Having then said this patient did have puerperal sepsis, in that indeed this was due to one of the Clostridia groups, I think there are two or three things we have to further explain in regard to this patient. In the first place, the culture data obviously do not substantiate the diagnosis of clostridial infection. The blood cultures which were obtained, both aerobic and anaerobic, did not demonstrate any growth, and the organisms which we did culture from the cervical area were gram-positive cocci, one of which was called a nonhemolytic Streptococci, and coagulase-positive *Staph. aureus*, and some type of gram-positive bacillus. However, since I do not believe that these organisms can cause the clinical picture which the patient had, I believe they were probably contaminants from the vaginal area and were not actually involved in the uterine infection itself. We might go on to say what other evidence we would need to establish a diagnosis of Clostridia postabortal disease, and these are probably three: In the first place, the presence of large amounts of gas within the uterus itself would be suggestive of clostridial infection of

the uterus, because the Clostridium does produce gas, both in vitro and vivo, and may be seen within the uterus itself on x-ray. As you heard, we did not find this in the present case. On the other hand, the presence of gas per se is not pathognomonic of clostridial disease, because there are other bacterial infections, particularly the Aerobacter and some of the *E. coli* which can produce gas in vivo. It obviously would have been much easier to substantiate a diagnosis of clostridial infection if we had isolated the organism itself from the vagina or the material. In part this may have been difficult in this case because the patient had received antibiotics in reasonably large doses before she was ever admitted to this hospital. I think it is important to point out that the mere isolation of Clostridia does not make a diagnosis of clostridial infections because one can isolate Clostridia from man in about 30% from various surfaces, and it can be isolated from about 30% to 40% from the vagina. Finally, the most pathognomonic finding, obviously, would have been isolation of the Clostridia from the blood stream itself. This we did not have.

We may turn lastly to the therapy and what prognosis we might have expected. I think in this particular case the therapy was reasonably adequate based upon the evidence we have. In the first place, the clostridial organism is susceptible to penicillin, and penicillin is indeed the drug of choice. In this case the patient was treated with large doses of penicillin among other antibiotics she received, so that antibacterial activity appeared to be adequate.

Secondly, the patient received antitoxic activity in the sense that she did receive gas gangrene antitoxin. We are not given the doses of this, but presumably they were given in large doses. In most series, attempts are made to give something in the order of 100,000 polyvalent gas gangrene antitoxin initially and perhaps every four to six hours thereafter, in severe cases such as this. Probably most important, however, is to remove the necrotic source at which this organism multiplies and grows. Once again, this was done in this particular case by actually removing the uterus which presumably was the source of infection. The management, I think, was ideal, so far as we can tell from the protocol, and despite this, the patient died. This again is in accordance with what is reported in the literature, and the overall mortality in the series I reported earlier was 60% to 70% of the patients who had clostridial toxemia died despite penicillin therapy, despite antitoxin, and despite either evacuation of the uterus by curettage or by removal of the uterus by hysterectomy.

Are there any questions then from the audience?

DR. DEISS: What was the role of transfusions in this patient in terms of renal shut-down?

DR. WHITE: I have ignored this for a large part; I think there are several causes obviously of anuria and shut-down. It is true that the transfusions could have been incompatible or could have been associated with shock and renal shut-down. Transfusions per se would have been unlikely, I think, to give this marked degree of hemolysis associated with a 2.5 gm % of free circulating hemoglobin unless much more incompatible blood was given, so I have ignored it largely from that extent.

DR. SOPER: Are solute diureses, particularly with something like mannitol, helpful in terms of preventing the hemoglobin casts from breaking down and plugging, actually, the renal tubules?

DR. WHITE: This has been recommended by a number of sources as a potential means of preventing the hemoglobin from "mechanically blocking" the tubules and actually shutting the kidney down. Actually, I am extremely dubious in my own mind that the problem is anywhere near as simple as a simple hemoglobin cast blocking the tubules and causing renal shut-down. I do not know of any good evidence on any type of control study that mannitol administered during the time of an incompatible blood transfusion actually lowers the incidence of renal shut-down. Others in the audience, who are more knowledgeable than I, might comment on this. Any other questions?

DR. DALY: The association of the thrombocytopenia and the very low prothrombin times suggests that this may be analogous to the Shwartzman phenomenon. What role might the Shwartzman phenomenon have played in this particular patient's illness?

DR. WHITE: In general, associated with severe gram-negative sepsis in man, and certainly reproducible in experimental animals by two doses of bacterial endotoxin, one can get a generalized Shwartzman phenomenon, one of the major characteristics of which actually is bilateral necrosis of the kidneys and bilateral cortical necrosis, in particular, glomerular disease. This finding is reasonably uncommon, I think, in gram-negative sepsis in man. That is, the complete picture of the Shwartzman phenomenon, and again with the shock and with the endotoxin liberated from gram-negative bacteria, could have had a generalized clotting phenomenon associated with utilization of

prothrombin with the lowering of the platelet count and conceivably with the anuria. Once again, however, this forces us to ignore the most striking finding, to my mind, and that is the extremely high free hemoglobin levels which were present and therefore I think is less likely a probability than the diagnosis I chose.

A PHYSICIAN: What contribution may some of the medications this patient received have had upon the clinical course of the illness, and indeed, some of the medications she may have taken before, perhaps in an attempt to produce the abortion, have had upon the illness?

DR. WHITE: I find this a little hard to answer in any clear way because I don't know of any good toxins myself which produce all the various manifestations which this patient had. Certainly necrosis, nausea and vomiting may occur with a large number of toxins. So may thrombocytopenia, but less frequently. I am not aware, in my own mind, of any toxins which will produce the whole picture of anuria, hemolytic anemia and thrombocytopenia, which this patient had.

If there are no other questions, we will turn the floor over to our pathologist, Dr. Hubbard.

DISCUSSION OF PATHOLOGY

DR. JESSE D. HUBBARD: Autopsy findings are consistent with a generalized sepsis. The uterus, removed surgically, was cultured, but there was no growth of a significant organism, at least none that I think is significant. Attention was paid to the possibility that there was a Clostridium infection, specifically *Clostridium welchii* (or *Clostridium perfringens* as it is also called); however this organism was not obtained by culture nor demonstrated in tissue sections. So far as I can ascertain, gas was not detectable in the wall of the uterus either by gross or microscopic examination. There is little, if any, leukocytic infiltration. Later, at the autopsy, special attention was given to the surgical site where tissues were necrotic and healing delayed. From material collected here, several organisms were cultured. By far the most significant was *Clostridium welchii*, which was identified by the local Microbiology Department as type A *Clostridium welchii*. This was confirmed by the Communicable Disease Center in Atlanta, Georgia. Other organisms obtained from the operative site were *Staph. aureus*, coagulase-negative, some type of non-hemolytic streptococcus, and *Pseudomonas aeruginosa*. Thus a mixed type of flora was present. Of these, only *Clostridium welchii* fits the clinical picture. A non-hemolytic streptococcus and a proteus organism grew from a postmortem culture of blood obtained from the heart.

The swollen kidneys (290 and 295 g.) had a generalized vascular engorgement and a pronounced dilatation of the convoluted tubules. Casts of various compositions filled many tubules. Some were hyaline in nature. Others had entrapped erythrocytes, leukocytes and desquamated epithelium. The granularity of many casts was probably due to the presence of hemoglobin.

The renal epithelium was in various stages of disintegration. In places the epithelium had completely disappeared leaving the bare basement membrane. The epithelium of other tubules appeared necrotic and desquamating. Patches of vacuolated epithelial cells remained attached in still other tubules.

The renal damage cannot be ascribed to a specific agent. The changes are compatible with damage by bacterial toxins, tubular obstruction (casts) or hypoxia, or by a combination of these or by still other unsuspected agents.

The hepatic cell alteration of cytoplasmic vacuolization (probably fatty metamorphosis) and nuclear pyknosis in the central zone of the lobule is consistent with a toxic damage. The lack of vascular congestion makes hypoxia an unlikely cause.

The lungs were focally consolidated by a hemorrhagic exudate. Clusters of coccal forms of bacteria were present, but only a minimal accumulation of neutrophilic leukocytes developed. A few foci of necrotic tissue remained in the coagulated state.

The soft moderately enlarged spleen (255 g.) had a depletion of the lymphoid tissue and vascular congestion. The splenic changes may well be a reaction to a systemic sepsis.

Unfortunately, bone marrow was not available for examination.

In summary, I believe the death was due to a uterine infection by *Clostridium welchii*.

Dr. Hunter Soper has a question concerning the degenerative changes in the liver, which could be called a form of hepatitis. He wonders if the changes of degeneration around the central veins — central lobular degeneration — could be due to substances such as carbon tetrachloride, or various other substances — antibiotics or whatever it might be? The changes that we see here are not specific. Many agents will cause damage of the liver cells, especially in the central lobular area. I think we can rule out congestion as the cause of the damage. If this were due to carbon tetrachloride, which does cause fatty metamorphosis and necrosis around the central vein, I

would say it was a pretty light dose. The fatal intoxications with carbon tetrachloride that I have seen have caused a wide zone of necrosis around the central vein. In the case being discussed, the change wasn't nearly that severe. It was a relatively minor degenerative change.

Dr. White asks if in the renal lesions that we see, could the changes in the kidney be secondary to the accumulation of hemoglobin? I believe that the vacuolization of the renal epithelium would point more toward the direct action of a toxin. However, many of the changes could simply be caused by blockage of the tubules. But the vacuolization, I would pick as being the result of some toxic substance. Again, I can't give a specific toxin for it.

DR. SOPER: There is a question I think about the philosophy of treating spontaneous abortion. Should these people be hospitalized always, only when you are expecting a complication, or just what should your attitude be? Dr. White, you're no obstetrician. How do you handle these?

DR. WHITE: As Dr. Soper says, I am not an obstetrician, and I am not sure I have the answer to this. Obviously it depends for a large part on how far along the abortion has gone. There are a number of abortions which occur very early in pregnancy and are really very little more than a menstrual period, and therefore I think do not need hospitalization and need very little else in the way of further therapy. But the further along the pregnancy is, the more likely there is to be a necrotic and raw material, and particularly if one has doubt whether or not the placenta has been passed intact. I think this type of information needs to be obtained, and if not obtained, then one must worry about whether there is indeed residual necrotic material within the uterus, which is a very good source for infection with *Clostridium welchii* itself or indeed with any of the bacteria which we talked about. So the further along the pregnancy is, and the more equivocation which one has about what the placenta really was and whether it was really passed in toto, I think the stronger the indications are for hospitalization in determining this. In this particular case, I think we don't know whether the placenta was passed intact, or indeed whether all the placenta was passed, and I expect it was not, although we do not have evidence in the protocol to say this.

Dr. Soper also asks what is the role of prophylactic antibiotics, presumably, I suppose, in abortion itself but also the same general picture, I think, holds for all types of prophylactic antibiotics. The major difficulty in terms of prophylactic antibiotics of any type is that one is not trying to prevent an infection of a particular organism but trying to prevent infections with all types of organisms. So in general the only circumstance in which prophylaxis is effective is when one is trying to prevent a specific infection with an antibiotic to which that infection is always susceptible. Of course, the example par excellence of this is group A beta hemolytic streptococcal disease which is always susceptible to penicillin and therefore these infections can always be prevented with penicillin. On the other hand, when one is trying to prevent a whole variety of diseases from a whole variety of bacteria with a wide variance in antibacterial spectrum, the evidence is pretty good, I think, that one simply cannot do this. One simply alters the type of infection which occurs, does not lower the total incidence of infection and indeed the infections which do occur on prophylactic antibiotics tend to be at least antibiotic-resistant and many times very virulent.

In closing, I might make one further comment, if I may: I think it is a remarkable coincidence that all three of the clostridial diseases which we encounter that is *Clostridium tetani* and tetanus itself, *Clostridium botulinum* and botulism, and this type of infection with *Clostridium welchii*, are diagnoses which have to be made largely on clinical grounds. But the failure to isolate tetanus bacilli from a case of tetanus by no means excludes it, and indeed in this type of postabortal infection, the clinical picture is pathognomonic that on that ground alone one should proceed to treatment, as they did in this case. Secondly, this is predominantly a toxin, and even if one removes the bacteria in toto, in the case of tetanus bacillus or in the case of clostridia, oftentimes sufficient toxin has been released and fixed to tissues so that the disease progresses despite the failure of elaboration of additional toxins. ◄

Thirty cases of major side effects of contraceptive pills are reported. The author feels that these problems are more common than is usually believed. Patients on such medication should be checked carefully at six months intervals for untoward side effects.

Some Apparently Common Problems in Patients Taking "The Pill"

PHILIP BALL, M.D.
Muncie*

THIS article is in the nature of a warning to physicians prescribing the so-called contraceptive pills whether for the purpose of pregnancy prevention or for treatment of gynecologic disorders including dysmenorrhea, endometriosis, dysfunctional uterine bleeding, menstrual irregularity, etc. The side effects of depressive symptoms, malaise, fatigue, tension, lack of libido and acceleration of vascular type headaches during administration of these pills is a more frequent problem than believed by most physicians.

This article is based on an unscientific sampling of some 30 cases recalled "out of thin air" from an internist's office practice. The symptoms concerned are intangible enough that they would not be well identified in a mass survey—particularly if this were of a population in a backward "test country" or a population group which was only casually or superficially surveyed. It is also true that the symptoms are common enough in any case so that perfect proof of relation of the symptoms to contraceptive medication is not easy.

The author has also seen several cases of thromboembolic disease and of erythema nodosum in patients on contraceptive pills, but feels that these are infrequent problems as compared to those which are of concern here.

* From the Department of Medicine, Ball Memorial Hospital, Muncie 47303.

Case Reports

Case #1: The patient was first seen in February, 1965 complaining of headaches occurring in cyclic fashion. They were severe in nature, and were often accompanied by nausea, vomiting and photophobia. The patient had been on norethynodrel with mestranol, 5 mg., (Enovid) for some three years. Treatment for migraine was carried out.

The patient returned in September, complaining of symptoms of depression, tension and migraine. At this time she was advised to take a vacation from her contraceptive medication and use some old-fashioned technic for pregnancy prevention.

The patient, next seen in February, 1966, stated that the depression, tension and migraine headache seemed to abate promptly when the contraceptive pill was stopped. She said that until she had quit the contraceptive pill, she felt that "I had made a mistake in my marriage or married the wrong man or marriage was not for me." Now, she said, she was "happy, marriage was wonderful and I had no idea it could be this wonderful." The patient was last seen in July, 1966, and was continuing to feel quite well and had no complaints.

Case #2: The patient was seen in July, 1965, complaining of fatigue and some intermittent depression which had been present for one year. She had been on norethindrone with mestranol, 2 mg., (Ortho-Novum) for one and one-half years. No physical problems were identified on complete examination and she was advised to stop the contraceptive, and a few doses of desipramine (Norpramine) 25 mg. four times daily were given for a few days. The patient was next seen in August, feeling very well in all respects. She stated she was "better than in a long time. Everybody notices it." She was advised not to resume the contraceptive medication.

Case #3: The patient was first seen in September, 1966, complaining of being "run down, grouchy and irritable" since October, 1965. She also complained of chronic fatigue and loss of normal libido. She had been on chlormadinone with mestranol (C-Quens) since October, 1965. She came to me at the insistence of her husband. She was advised to stop the contraceptive pill; no other medication was prescribed. When seen one month later, she had no residual complaint.

Sequential Contraceptive Pills

Case #1: The patient was seen in August, 1966, complaining of headaches which had been quite frequent for six months. They occurred as often as three times per week, were usually right-sided and were often

associated with some scotomata and nausea. She also complained of some mild depressive feelings during the previous year. Interrogation about medication revealed that the patient had been on C-Quens for the past 12 months. Prior to that she had been on Ortho-Novum for nine months and prior to that had been on Enovid. It would appear that the sequential type was associated with the period of the greatest symptomatology.

Case #2: This patient, according to her statement, was begun on 5 mg. Enovid in January, 1965. She was married in February, 1965. She consulted me in May, complaining of fatigue, irritability, depression and frequent generalized headaches. She was advised to take Norpramine 25 mg. three times daily after meals. On May 29, she stated she felt somewhat improved. She was advised to stop Enovid and start C-Quens. When seen in September, she stated she was somewhat improved in reference to the depressed feelings and headaches. She discontinued all contraceptive medication in January, 1966, in order to become pregnant.

Already Existing Depressive Problem

Case #1: This patient had been hospitalized for neurotic symptoms and depressive reactions as far back as 1958. This condition was severe enough to require care under a psychiatrist in a psychiatric unit. She continued to be troubled with various emotional symptoms, especially those of periodic depression. The symptoms seemed to be considerably accelerated between 1962 and 1966 and she was under psychiatric care with multiple drugs, group therapy, discussion therapy, etc. She had been on Enovid from 1962 until 1965 but discontinued it because of "constant vomiting." She was next put on Ortho-Novum by another physician and took it for approximately one year. She discontinued it in February. 1966, because of increased headaches which she was convinced were caused by the drug. The patient has been better emotionally since February, 1966, when all contraceptive medication was discontinued.

Case #2: This patient had been under psychiatric care for some six years for presumed schizophrenic reaction, marked chiefly by depressive symptoms. At her request, she was started on 5 mg. Enovid as a contraceptive measure in April, 1964. The treatment with this drug was marked by considerable breakthrough bleeding, nausea, increased fatigue and breast soreness. She continued on this medication, however, and in March, 1965, complained of severe headaches. She stated that headaches had been recurrent since age 18, however they had been much more frequent in the previous eight to nine months. They were usually of generalized pounding type with blurred vision, nausea, dizziness, etc. During this period of a year, the patient was in and out of a psychiatric unit on several occasions. Her depressive symptoms increased markedly. In the latter months of 1965, the patient discontinued the medication on her own because she was convinced it had aggravated her depression. She has been somewhat improved since that time.

Cause of Major Symptoms

Case #1: This patient was seen in June, 1966, complaining of weight gain of 15 pounds in eight months; sluggishness; tiredness; tension and depression. The patient had been on 2.5 mg. Enovid since November, 1965. She also stated that since taking this medication, she had been sexually disinterested. Complete physical examination was entirely negative except for chloasma.

The patient was advised to stop the contraceptive medication because of multiple side effect problems. The patient stated that this was impossible. She said that both she and her husband would not be satisfied with anything less than 100% assurance against pregnancy. She stated that she and her husband (both of whom were 23, had been married one and one-half years and had one child) did not wish any more children "ever." The patient said that unless I could see that her husband was operated to render him sterile, she could not under any circumstances discontinue the pill no matter what it caused inasmuch as no other measures would offer 100% assurance against pregnancy.

Case #2: This patient began taking Ortho-Novum in June, 1964. When seen in September, 1966, she stated fatigue had been constant since the fall of 1964. She had also gained considerable weight and felt herself to be 25 pounds above desirable weight. She also had chloasma. She wanted to lose weight, then discontinue the contraceptive, and have another baby—in that order. She felt that she couldn't lose so long as she took the contraceptive pill and couldn't afford to get pregnant as overweight as she was. When last treated elsewhere, she had been told to continue the birth control measure and take an anorectic pill, diethylpropion hydrochloride (Tenuate). Here was a female who was fat, fatigued, pigmented, infertile and confused as to what to do next. I told her to stop all pills—but she remained fearful and dubious when last instructed.

Case #3: Patient was first seen in August, 1966, in the psychiatric wing of a general hospital. She had been admitted for tension and depressive symptoms which had begun some 12 months before. The patient stated that she had been started on Enovid some 15 months before—about three months prior to the start of the depressive symptoms. A few months after the onset of the depression, she consulted the physician who had started the contraceptive medication and asked him if it were possible the pills could be causing

her to feel so badly. He advised her it was not possible and she continued the medication for another few months. She then discontinued it on her own.

Case #4: The patient was seen in July, 1966, complaining of bloating, weight gain of ten pounds in one year, and frequent headaches. These headaches were often occurring twice weekly, were frontal in location and were associated with nausea and vomiting. The patient also complained of lack of energy, chronic fatigue and a lack of libido over the past six months. The patient had consulted another physician in February, 1966, and asked whether the headaches and lack of energy could be related to the taking of 2 mg. Ortho-Novum which she had been on since approximately July, 1965. He told her this was not possible, but she discontinued the medication and when seen two weeks later, had already experienced some relief from her major symptoms.

Discussion

It should be pointed out that the author has not prescribed these pills for contraceptive purposes for some two years, hence he is not seeing these problems in patients to whom he has given the prescription but rather in patients who have been given the medication by other doctors. It would seem probable that had he continued prescribing these pills, he would have had a much more voluminous series of case reports.

All of the side effect symptoms mentioned here are listed in contraceptive drug information pamphlets, yet it is not considered unusual that more physicians have not warned of these side actions. It should be pointed out that these medications have been in general use scarcely five years. Yet it took some ten years to realize some of the major drawbacks of long term use of cortisone in rheumatoid arthritis. It probably took 40 years to realize the problems of aspirin usage in people with recurrent duodenal ulcer. Many physicians today are still not well aware of the depressive potentialities of rauwolfia drugs even after 15 years use of this type drug.

Further it should be pointed out that any morbidity from these pills occurring in a healthy woman in whom they have been prescribed for purely contraceptive purposes is a violation of the medical maxim "Primum non nocere." Such pure contraceptive application of the pill may be in a teenage girl about to be married, who instead of simply getting happily married, gets married and then gets sick. The pill may be applied in a 30-year-old happily married woman who simply wants to become infertile and instead becomes infertile and unhappy. The pill may be given to a 45-year-old woman who wants to "stay young forever" and has been granted this option by a physician who believes that the contraceptive pill formula given in a cyclic fashion will help her stay youthful, happy, confident, regulated and young forever and ever.

Hence there is offered the risk of a drug's morbidity to a woman who has no disease. This is considerably different than offering the risk of penicillin allergy to a woman who has pneumonia, the risk of digitalis toxicity to a woman who is in cardiac insufficiency, or the risk of pyloroplasty and vagotomy to a woman who has recurrent bleeding from duodenal ulcer. Of course in cases where the contraceptive pill formula is used for treatment of a pelvic disease problem, the morbidity of the drug can be rightly weighed against the morbidity of the disease.

Actually, the author doesn't believe the contraceptive pills are responsible for all of the fat, fatigued, fussy, fluid-filled, infertile females in the country. Maybe they are only causing one fourth of these problems. But this is too much.

A peculiarity pointed out is that these pills, when properly used, are essentially 100% perfect insofar as their efficacy in preventing conception. On the other hand, their safety is certainly not 100%. The drugs then must be weighed against the use of some other contraceptive modality which may not be 100% efficacious but which is 100% safe in terms of morbidity. It is rather ironic that some women are not willing to trade 100% efficacy for 100% safety.

It is unusual in practice to have patients so fiercely in favor of a pill that they will get them from some other physician and take them despite strong contrary advice and even in the face of their own adverse experience. On the other hand, the author has been happy to see several women come into his office recently asking for advice about stopping the pill and starting one of the other, old-

fashioned measures. This picture contrasts sharply with some three to five years ago when his appointment book was often spotted with the names of women coming in to get off the old-fashioned contraceptive and onto the pill. Tempus fugit.

A minor observation has been that patients having migraine while taking contraceptive medication seem refractory to the usual preventative and treatment preparations for migraine.

Another problem that seems to be brought sharply into focus by the considerations of this article has been that of the medical subdivision of the American patient. Certainly the American female patient is staked out in sections in most medical communities; hence the hand that writes the prescription for the contraceptive medication may not be the hand that does the Papanicolaou smear and pelvic exam nor the hand that writes the prescription for antidepressant pills and antimigraine drugs. The author has observed repeatedly that women will get their contraceptive pill prescription from one physician and when the side effects occur, consult another doctor in reference to that problem. This second doctor may not know what, if any, other medicines the patient is taking unless he asks. It is certainly true that the left hand does not know what the right hand does, nor yet what "the pill" is doing.

It is not considered reasonable that there be any mortality or morbidity in a pill used purely for contraception purposes. Medical research has got to offer something better than this. Physicians will probably look back on the contraceptive pill era of the past five years with some embarrassment.

Addendum

Since writing this article over a year ago, the author has seen many more examples of the problems described here and has seen the attitude of women as reported in the "women's magazines" swinging somewhat away from total enthusiasm for "the pill." ◀

About Our Cover

January ushers in the new year, offering us 365 chances to not make the same mistakes we made last year!

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As an Indianapolis disc jockey is always saying, "Do someone good today!"

The beautiful winter scene on this month's cover was taken by Henry Wood, New Palestine.—J.F.S.

Electrocardiogram
of the month

Presented as a regular feature of The JOURNAL, Electrocardiogram of the Month is a series of short talks on cardiovascular diagnosis and treatment, edited by the staff of the Krannert Heart Research Institute, Marion County General Hospital and the Department of Medicine, Indiana University School of Medicine, Indianapolis.

Atrioventricular (A-V) Nodal Tachycardia in Emphysema

CHARLES FISCH, M.D.
Indianapolis

AS was pointed out in the October, 1967 ECG of the Month, patients with far advanced chronic obstructive pulmonary emphysema (COPE) are subject to supraventricular arrhythmias and an example of a double tachycardia (A-V nodal tachycardia and PAT with block) was shown.

Figure 1 is an example of nonparoxysmal A-V nodal tachycardia in a patient with COPE. The bottom strip (V-3) was included as a control and demonstrates normal sinus rhythm with a P-R of 0.28 seconds. The tall R indicates right ventricular hypertrophy. The first strip (lead III) shows normal sinus rhythm. In AVF the P-R gets progressively shorter and the R-R interval remains constant at a rate of about 75 per minute. The changing P-R indicates A-V dissociation with the QRS originating in the A-V node. The rate of 75 classifies the rhythm as a nodal tachycardia. By the time V-3 was recorded, the P waves were buried in the QRS.

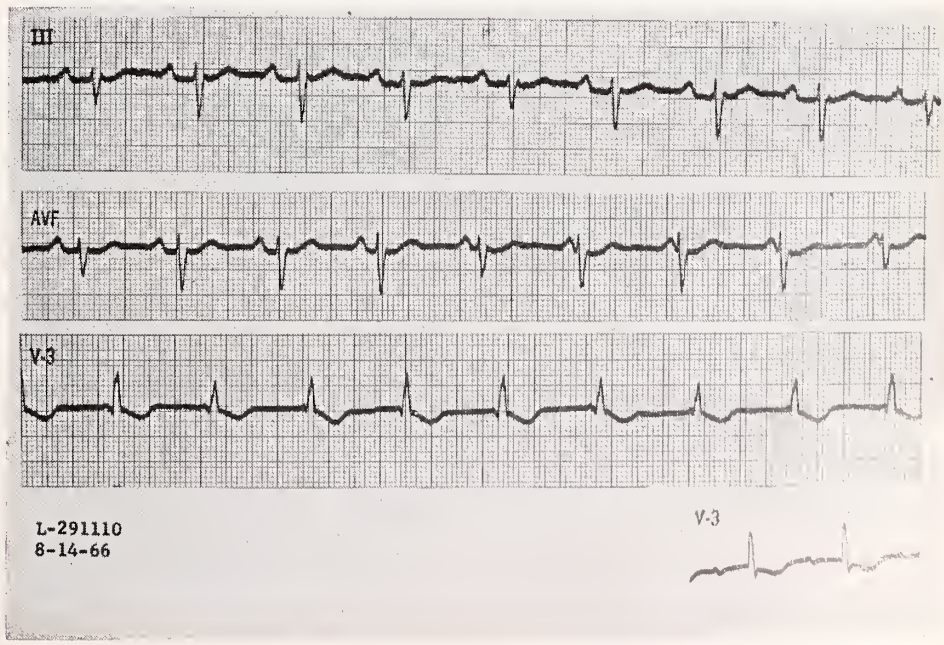

FIGURE 1
NONPAROXYSMAL A-V nodal tachycardia n a patient with COPE. For details see text.

FRACTURES AND ORTHOPEDIC PROBLEMS

"Fractures and Orthopedic Problems" is a feature which will appear regularly. It will outline conditions involving bones and joints which will be of interest to physicians in general and special types of practice. It will be edited by George F. Rapp, M.D. of Indianapolis. The submission of short illustrated articles to this feature is invited.

Conserving Surgical Treatment of Rheumatoid Arthritis of the Hands

F. ROBERT BRUECKMANN, M.D.
Indianapolis

"RECONSTRUCTIVE procedures though they become indispensable in the later stage of deformity are less desirable, and yield poorer results than conservative means applied in the earlier stages", stated Arthur Steindler, one of America's foremost orthopaedic surgeons years ago. What constitutes conservative treatment has always been difficult to define, but has generally been thought to mean nonoperative treatment; whereas operative treatment meant a radical approach. In uncontrolled rheumatoid arthritis and synovitis, surgery is a conservative means of treating the disease process in conserving hand function and appearance.

One of the expressions of rheumatoid arthritis is in the synovial activity about tendons, joint capsule and articular surfaces. The intense synovitis acts in a malignant fashion covering tendon joint surface, slowly distending the joint capsule and producing deformity as a result of direct injury and protective muscle spasm. After the soft tissue swelling, involvement of the bone and cartilage occur. Bone is involved in two ways, erosions and juxta-articular osteoporosis. Erosions are seen as bite-like losses in structure, especially adjacent to the joint capsule insertions. These are actually secondary to synovial invasion which may go deep enough to produce a cyst-like defect when viewed "on end." The mechanism of the osteoporosis is obscure, but may be due to local hyperemia and perhaps disuse. Cartilage is destroyed as a result of poorly understood processes, namely mechanical attrition, lack of nutrition due to changes in the synovial fluid, direct infiltration by synovial tissue and metaplasia of hyaline cartilage to the fibrous variety.

Indications for Surgery

When is operative treatment a conservative means of management? This frequent question is still somewhat undecided in most rheumatologists minds; however in the past 10 years, the length of time a synovitis can remain in florid condition is shortening. I feel that a synovitis in the adult which remains warm, painful and swollen for four months despite medications and the use of physical means is an indication for surgery. Synovectomy is needed for its preventative roll.

The indications that mandate surgery when discovered are these:

1. Compression of the median nerve in the carpal tunnel or the ulnar nerve at the wrist.
2. Rupture of the flexor or extensor tendons at the wrist or in the hand.
3. Trigger fingers due to chronic tenosynovitis with the joint adjacent being immobile.

Pain in the hand, worse at night with numbness in the median nerve distribution with or without thenar atrophy, suggests the diagnosis of a carpal tunnel syndome. This is often seen early in the disease before the diagnosis of rheumatoid arthritis is made. The wrist may be swollen, but is generally just tense and reproduction of the pain and burning can be ellicited by flexion of the wrist (Phalen's test). Complete section of the volar transverse carpal ligament will release the median nerve. The ulnar nerve is similarly involved, though less frequently, and should be treated.

Tendon rupture is most frequently seen in the extensor tendon group to the small and ring finger and in the long extensor to the thumb. Repair of the tendons, if possible with tenosynovectomy, and synovectomy of the wrist with resection of the distal ulna, (Darrach operation) is what is usually needed. Preventa-

tive surgery is still the best.

Snapping Fingers

Trigger or snapping fingers can be released under local anesthesia as an outpatient, and greatly improve function. The physical findings are those of a tender lump in the palmar surface which moves with the tendon function and may snap back and forth or lock the finger in flexion and extension. usually with pain. This is most frequently seen in the middle and ring fingers at the metacarpal phalangeal joint level. Local infiltration through a small skin incision at the level of the nodule with sectioning of the tendon sheath and pulley will stop the snapping and relieve the symptoms.

The results of synovectomy are generally noted in the first postoperative day. The majority of the patients experience an unexplained relief of pain in spite of the recent surgery. This has been almost universal in my experience in practice and at the rheumatology clinic at the Marion County General Hospital. The cause is temporary denervation of the joint or tendon area by the synovectomy. This pain relief is more than that expected and found with the same procedure in the joints of degenerative arthritis. Possibly the patients have learned to blot out a large degree of pain so that they are used to pain without knowing it.

The later results of synovectomy are improved function and appearance after the period of rest needed for healing of the surgical wound. The long term results are preventative in nature for even though the synovia regenerates in about 60 days, it is uncommon for the synovia to be re-involved in the synovitis of rheumatoid arthritis. One need only to observe the severe hand deformities present in many of the patients we see to observe what can happen to hands in a short time when left to the ravages of active synovitis. How much we would condemn a surgical procedure that produced this type of hand as an end result, when in fact it was due to the uncontrolled rheumatoid activity and its natural consequences.

Aids in Diagnosis

Aids to the diagnosis of the extent of rheumatoid arthritis are those of the laboratory and x-ray. X-rays taken in the P.A. plane and 30° oblique P.A., especially on fine grain film, can show the soft tissue changes of swelling and minute cortical erosions which can be followed to assure one of the progression of the disease process. The most common sites in the hand are in the ulnar styloid area and the metacarpal head area near the collateral ligaments. These radiographic findings are present many times with few symptoms. The usual laboratory studies of the CBC, sedimentation rate, ASO titer, latex fixation test and titer as well as the latex test on the joint fluid are all helps in diagnosis. The warmth, swelling and pain of the joints of the hand with poor grip and pinch with progressive loss of function and daily activity really tells the story as to the progression of the disease. Unfortunately, the patient with rheumatoid arthritis is affected by a systemic disease and cannot be treated solely on the basis of the hand problem.

After the disease process has continued far enough to produce bone and tendon changes, there are still ways to conserve function by the use of surgery. The most frequent hand deformities in rheumatoid arthritis are:

1. Wrist flexion deformities.
2. Ulnar drift of the finger.
3. Instability of the thumb.
4. Dislocation of the proximal joints in the fingers.
5. Intrinsic muscle contractures affecting the fingers, such as the swan neck deformity.
6. Loss of thumb, ring and little finger extension due to tendon rupture.

As the disease process continues, more reconstruction is necessary to get a less than normal result. The severe wrist deformity can be treated by arthrodesis of the wrist using a modification of the Smith-Peterson arthrodesis technic of removing the distal ulna. This helps with the rotation problems of the forearm. Ulnar drift of the fingers which is so noticeable can be treated at the time of synovectomy or arthroplasty of the metacarpophalangeal joints and should usually be accompanied by radial transfers of the extensor hood to improve appearance and conserve function.

Frequently the thumb is the site of a flexion deformity of the metacarpal phalangeal joints and a hyperextension of the interphalangeal joints. If the joint is unstable, arthrodesis of the thumb is important with some abduction and rotation so that the final pinch is still adequate.

When dislocation of joints occur, power grip in the hand greatly decreases. However, if the intrinsic muscle spasm has been severe with limited flexion at the distal joints, subluxation at the metacarpal phalangeal joints may give some temporary improvement to hand function as the thumb will again touch the finger tips instead of the middle phalanx. Repositioning of the joints at the time of arthroplasty will generally improve function as well as appearance.

Swan neck deformity is difficult to correct in the later stages. In the earlier stages, release of the lateral bands of the extensor hood over the proximal phalanx will improve function. If the central extensor slip loses its attachment to the middle phalanx due to synovitis at the proximal interphalangeal joint or rupture, a boutonniere deformity will result. This is one of the more difficult deformities to correct. At best, there are two treatments:

1. Arthrodesis of the proximal

interphalangeal joint in the functional position.

2. Tenotomy of the extensor tendon to the distal phalanx to cause a mallet finger tip and improve function.

Until the time that the etiology of rheumatoid arthritis is known and there is a specific drug for its treatment, the conserving surgical approach with removal of diseased synovia to prevent deformity will play an ever increasing role in the management of uncontrollable rheumatoid arthritis of the hand. ◄

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Lomotil helps get children with diarrhea off toast and tea and back to normal diets and normal activity with gratifying dispatch. ▪ Lomotil lowers intestinal motility and permits absorption of excess fluid. This usually controls diarrhea promptly. ▪ Moreover, lowered intestinal motility achieved with Lomotil often relieves the abdominal cramps and discomfort so distressing to children.

Precautions: Lomotil is a Federally exempt narcotic preparation of very low addictive potential. Recommended dosages should not be exceeded, and medication should be kept out of reach of children. Should accidental overdosage occur signs may include severe respiratory depression, flushing, lethargy or coma, hypotonic reflexes, nystagmus, pinpoint pupils, tachycardia; continuous observation is recommended. Lomotil should be used with caution in patients with impaired liver function or those taking addicting drugs or barbiturates.

Side Effects: Side effects are relatively uncommon but among those reported are gastrointestinal irritation, sedation, dizziness, cutaneous manifestations, restlessness, insomnia, numbness of the extremities, headache, blurring of vision, swelling of the gums, euphoria, depression and general malaise.

Dosage: The recommended initial daily dosages, given in divided doses until diarrhea is controlled, are:

Children: Total Daily Dosage

3-6 mo. . .½ tsp.* t.i.d. (3 mg.)
6-12 mo. .½ tsp. q.i.d. (4 mg.)
1-2 yr. . . .½ tsp. 5 times daily (5 mg.)
2-5 yr. . . .1 tsp. t.i.d. (6 mg.)
5-8 yr. . . .1 tsp. q.i.d. (8 mg.)
8-12 yr. . .1 tsp. 5 times daily (10 mg.)
Adults: . .2 tsp. 5 times daily (20 mg.) or 2 tablets q.i.d.

*Based on 4 cc. per teaspoonful.

Maintenance dosage may be as low as one-fourth the initial daily dosage.

SEARLE *Research in the Service of Medicine*

He's on the wagon...and

How well does Vistaril relieve the symptoms that plague an alcoholic during the recovery period? Doctors Knott and Beard of the Alcoholic Rehabilitation Unit, Tennessee Psychiatric Hospital and Institute, recently conducted a double-blind study comparing Vistaril and another well-established antianxiety agent with placebo in 60 chronic alcoholic patients.[1]

The investigators conclude: "It was the opinion of the staff that hydroxyzine was generally more effective than chlordiazepoxide, for the following reasons: hydroxyzine was equally if not more effective in reducing anxiety and tension and it produced less daytime sedation...."[1] (See results on succeeding pages.)

Here is new evidence that Vistaril can ease tension, allay anxiety in chronic, hospitalized alcoholic patients. *But you might also choose Vistaril for what it doesn't do.* Although not evaluated in this study, Vistaril is reported to be non-euphoriant, and its low toxicity makes it relatively safe. Best of all, Vistaril is non-habituating. To date, after more than ten years of clinical use, there have been no reports of dependency in patients receiving Vistaril.

With Vistaril, it is as easy to stop therapy as it is to start.

the study:[1] Sixty chronic alcoholic patients were hospitalized and randomly assigned to one of three oral double-blind treatment regimens for three weeks. Twenty patients received hydroxyzine (Vistaril®), 100 mg. q.i.d.; twenty others were given chlordiazepoxide, 25 mg. q.i.d.; and the remaining twenty received placebo capsules q.i.d. The capsule code was not made known until after completion of the study and analysis of the data. Response was measured with a modification of the Brief Psychiatric Rating Scale as originally outlined by Overall and Gorham.* Subjects were rated daily by trained staff members.

SYMPTOM RATING KEY

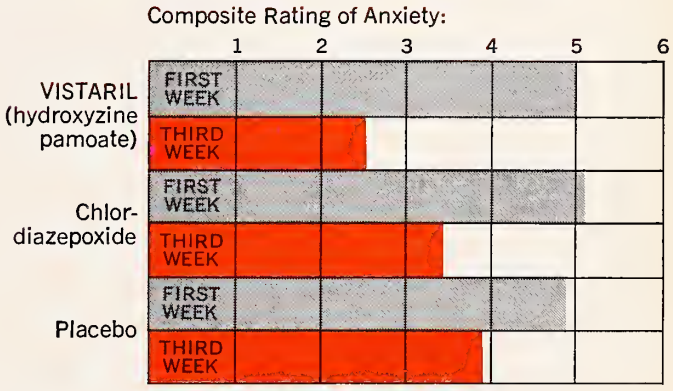
1=Not Present	4=Moderately Severe
2=Mild	5=Severe
3=Moderate	6=Extremely Severe

The figures which are given below represent the composite conclusions of the staff based on daily ratings during initial and final weeks of the study.

*Psychological Reports 10:799, 1962

the results[1] DURING FIRST WEEK / DURING THIRD WEEK

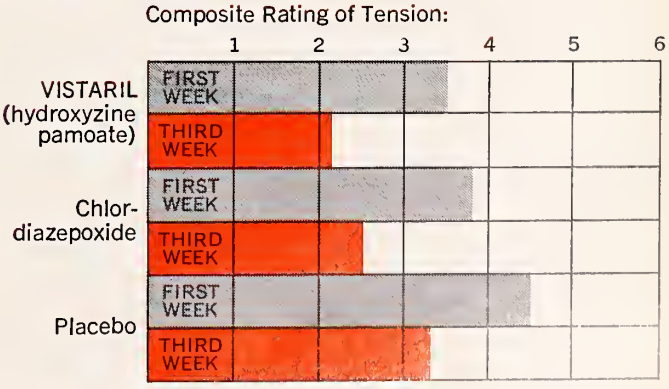
Anxiety reduced with Vistaril



OVERALL REDUCTION OF ANXIETY (%)

VISTARIL (hydroxyzine pamoate)	Chlordiazepoxide	Placebo
50%	33%	20%

Tension eased with Vistaril



OVERALL REDUCTION OF TENSION (%)

VISTARIL (hydroxyzine pamoate)	Chlordiazepoxide	Placebo
40%	34%	27%

Vistaril®
(HYDROXYZINE PAMOATE)

PLEASE SEE LAST PAGE FOR PRESCRIBING INFORMATION

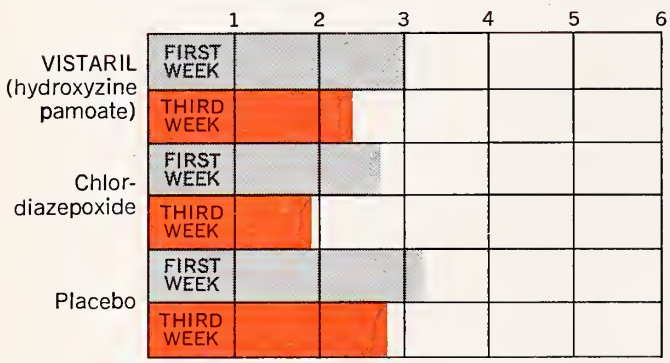
In Alcoholism...

"Both hydroxyzine and chlordiazepoxide were generally more effective than the placebo. In some aspects, hydroxyzine was superior to chlordiazepoxide, which is currently the most frequently used psychotropic drug in the management of alcoholism."[1]

DURING FIRST WEEK DURING THIRD WEEK

Depressive mood improved with chlordiazepoxide

Composite Rating of Depression:

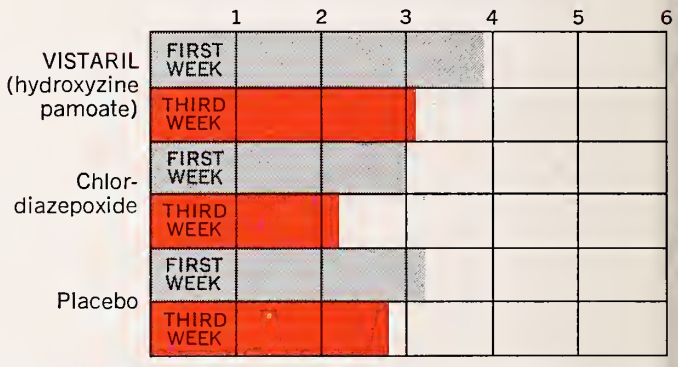


OVERALL IMPROVEMENT IN DEPRESSIVE MOOD (%)

VISTARIL (hydroxyzine pamoate) 20% | Chlordiazepoxide 30% | Placebo 13%

Emotional withdrawal counteracted with chlordiazepoxide

Composite Rating of Emotional Withdrawal:

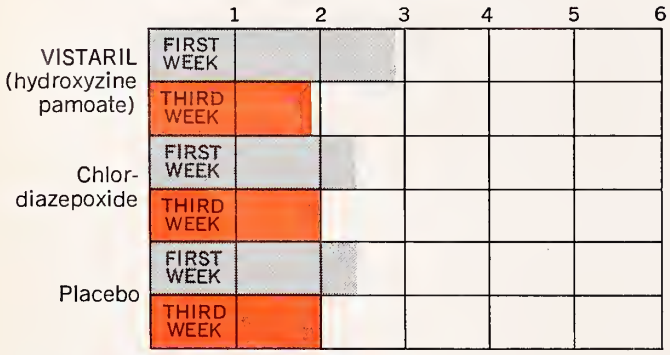


OVERALL IMPROVEMENT IN EMOTIONAL WITHDRAWAL (%)

VISTARIL (hydroxyzine pamoate) 21% | Chlordiazepoxide 27% | Placebo 13%

Guilt feelings allayed with Vistaril

Composite Rating of Guilt Feelings:

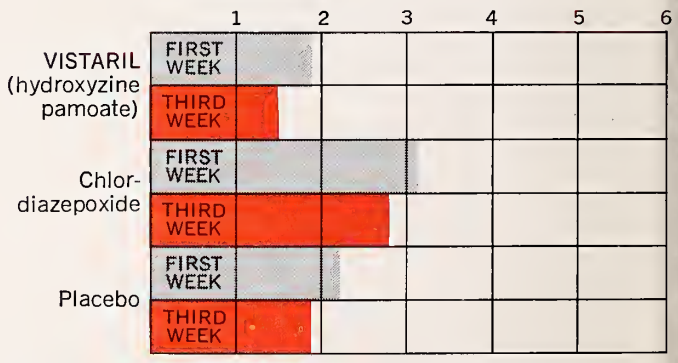


OVERALL DECREASE IN GUILT FEELINGS (%)

VISTARIL (hydroxyzine pamoate) 34% | Chlordiazepoxide 17% | Placebo 17%

Somatic concern alleviated to minor degree in each group

Composite Rating of Somatic Concern:



OVERALL ALLEVIATION OF SOMATIC CONCERN (%)

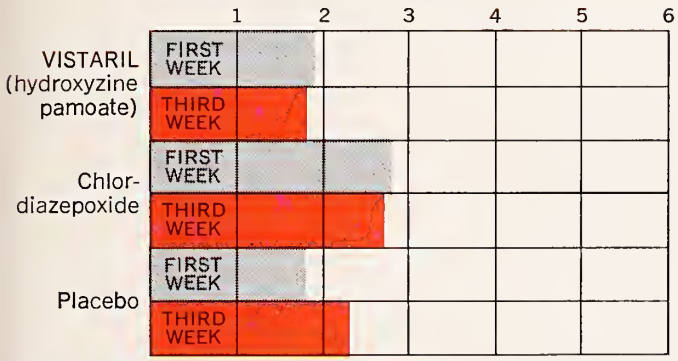
VISTARIL (hydroxyzine pamoate) 17% | Chlordiazepoxide 13% | Placebo 14%

Less drowsiness with Vistaril

	Drowsiness	Dizziness	Mouth Dryness	Increased Motor Activity	Ataxia	Nausea	Comments
VISTARIL (hydroxyzine pamoate)	6 patients (mild)	3 patients (mild)	2 patients (moderate)	—	—	—	Side Effects Not Treated
Chlor-diazepoxide	10 patients (severe in 6)	4 patients (mild)	—	1 patient (moderately severe in first week but gradually subsided)	—	—	Side Effects Not Treated
Placebo	2 patients (mild)	2 patients (mild)	—	—	1 patient (mild)	2 patients (mild)	Side Effects Not Treated

Increase in hostility minimized with Vistaril and chlordiazepoxide

Composite Rating of Hostility:

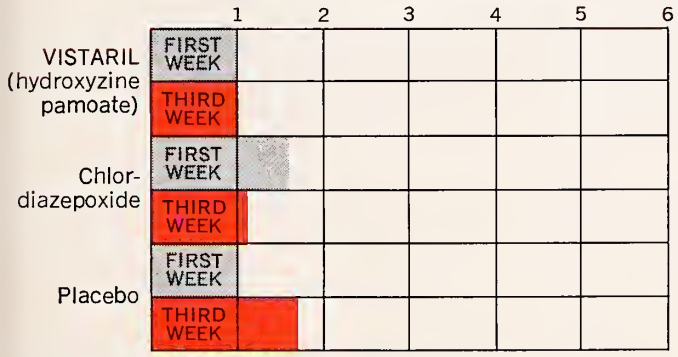


OVERALL CHANGE IN HOSTILITY (%)

VISTARIL (hydroxyzine pamoate)	Chlordiazepoxide	Placebo
5%	4%	—28%

Cooperativeness not a significant problem

Composite Rating of Uncooperativeness:



OVERALL CHANGES IN COOPERATIVENESS (%)

VISTARIL (hydroxyzine pamoate)	Chlordiazepoxide	Placebo
No change	31%	—70%

In Alcoholism...

Vistaril®

(HYDROXYZINE PAMOATE)

BRIEF SUMMARY

Contraindications: Hypersensitivity to hydroxyzine. The parenteral solution, for intramuscular or intravenous use, *must not* be injected subcutaneously or intra-arterially.

Hydroxyzine, when administered to the pregnant mouse, rat, and rabbit induced fetal abnormalities in the rat at doses substantially above the human therapeutic range. Clinical data in human beings are inadequate. Until adequate data are available to establish safety in early pregnancy, hydroxyzine is contraindicated during this period.

Precautions: Hydroxyzine may potentiate the action of central nervous system depressants such as narcotics and barbiturates. In conjunctive use, dosage for these drugs should be decreased, as much as 50%. Because drowsiness may occur, patients should be cautioned against driving a car or operating dangerous machinery. The usual precautions for intramuscular injection should be followed; soft-tissue reactions have rarely been reported when proper technique has been used. Hydroxyzine parenteral solution for intramuscular use should be injected well within the body of a relatively large muscle. In adults, the preferred sites are the upper outer quadrant of the buttock (i.e., gluteus maximus), or the mid-lateral thigh. In children, preferably the mid-lateral muscle of the thigh. In infants and small children the upper outer quadrant of the gluteal region should only be used when necessary, as in burn patients, in order to minimize the possibility of damage to the sciatic nerve. The deltoid area should be used only if well developed, such as in certain adults and older children, and only with caution to avoid radial nerve injury. Injections should not be made in the lower and middle thirds of the upper arm. Aspiration should be done to help avoid intravascular injection. On reported intravenous injection a few instances of digital gangrene have occurred distal to the injection site, considered to be due to inadvertent intra-arterial injection or possibly periarterial extravasation. Therefore, particular caution (aspiration and site injection) should be observed to insure injection only into intact veins; avoid either intra-arterial injection or extravasation. Intravenous administration should be accomplished slowly, no faster than 25 mg. per minute, and not to exceed 100 mg. in any single dose. In order to avoid possible adverse effects it is recommended that hydroxyzine parenteral solution be diluted to at least 50 cc. with sterile normal saline and administered over a period of four minutes or more, preferably into the tubing of a running intravenous infusion.

Adverse Reactions: Drowsiness may occur; if so, it is usually transitory and may disappear in a few days of continued therapy or upon dosage reduction. Dryness of the mouth may occur with higher doses. Involuntary motor activity, including rare instances of tremor and convulsions, has been reported, usually with higher than recommended dosage.

When this product is given intravenously undiluted, minimal amounts of intravascular hemolysis occur at the site of injection. Giving the maximum recommended intravenous dose (100 mg.) to adults results in immediate transient hemolysis with the liberation of a total of 2-3 grams of hemoglobin, which, in some individuals, can cause small amounts of hemoglobinuria. This compares with the normal red cell destruction from which approximately 8 Gm. of hemoglobin are liberated every 24 hours. If the hydroxyzine is diluted with 50 cc. of normal saline and given during a period of four minutes or more, this phenomenon does not occur.

Supply: Vistaril (hydroxyzine pamoate) Capsules: Equivalent to 25 mg., 50 mg., 100 mg. hydroxyzine HCl. Vistaril (hydroxyzine pamoate) Oral Suspension: Equivalent to 25 mg. hydroxyzine HCl per 5 cc. teaspoonful. Vistaril (hydroxyzine HCl) Parenteral Solution: 25 mg./cc.—10 cc. vial and 50 mg./cc.—2 cc. and 10 cc. vial; Isoject,® 25 and 50 mg. per cc., 1 cc. per unit.

More detailed professional information available on request.

Reference: 1. Knott, D.H. and Beard, J.D.: GP 36:118, September, 1967.

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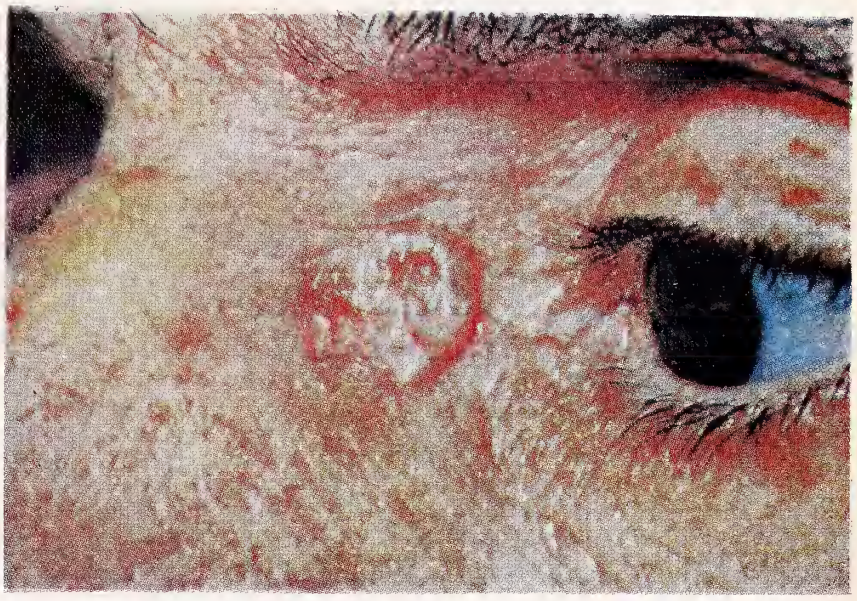
Prescribing Information: Composition: Each white, beveled, compressed tablet contains: Quinine Sulfate 260 mg. and Aminophylline 195 mg. **Contraindication:** QUINAMM is contraindicated in pregnancy because of its quinine content. **Precautions:** Aminophylline may produce intestinal cramps in some instances, and quinine may produce symptoms of cinchonism, such as tinnitus, dizziness, and gastrointestinal disturbance. Discontinue use if ringing in the ears, deafness, skin rash, or visual disturbances occur. **Dosage:** One tablet upon retiring. Where necessary, dosage may be increased to one tablet following the evening meal and one tablet upon retiring. **Supplied:** Bottles of 100 and 500 tablets. **References:** 1. Shuman, C.: Am. J. Med. Sci., 225:54, 1953. 2. Perchuk, E., et al.: Angiology, 12:102, 1961. 3. Rawls, W., et al.: Med. Times, 87:818, 1959. 6/67 Q-706A

The Cancer You View

Edited by

Edwin E. Pontius, M.D.

Indianapolis



JAMES H. GOSMAN, M.D.
*Indianapolis**

A 56-year-old man reported a lesion of the lateral surface of the nose near the inner canthus of the eye. He said it had been present for about one year. It bled slightly on occasion and would crust over and just about heal, but then fail to do so completely because of the pressure of his glasses.

What is your diagnosis?

What would you do to verify your diagnosis?

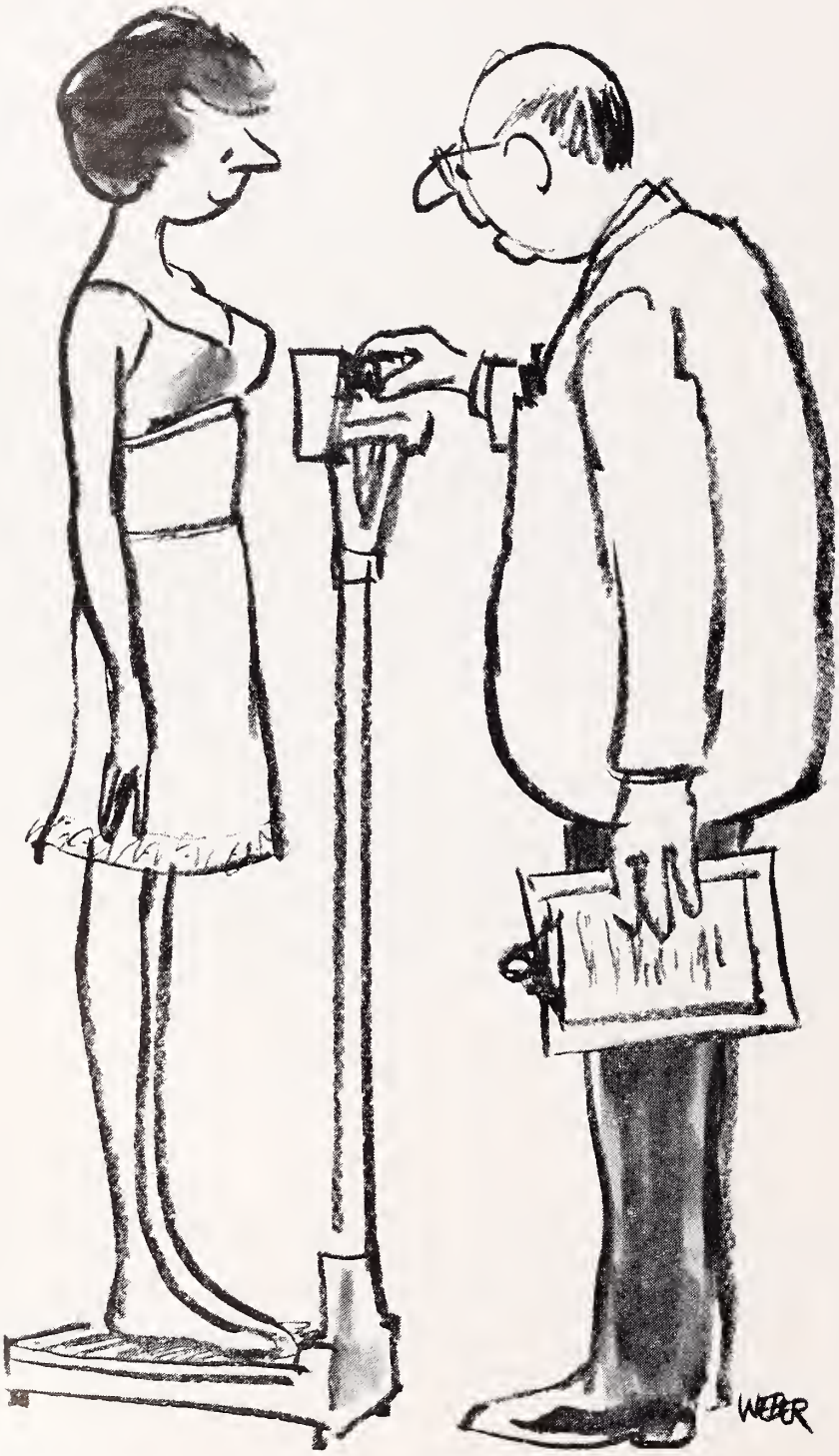
If you consider it benign, what would be your recommendations for therapy?

If you consider it malignant, what would you recommend for therapy?

For diagnosis and discussion, see page 125.

* Assistant Professor, Indiana University School of Medicine and the Methodist Hospital Graduate Medical Center, Indianapolis.

Supported in part by a grant from the American Cancer Society, Indiana Division, Inc.



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Dextro-amphetamine sulfate: Excessive use by unstable individuals may result in psychological dependence.

Meprobamate: Careful supervision of dose and amounts prescribed is advised, especially for patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g. alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on the drug. Where excessive dosage has continued for weeks or months, reduce dosage gradually. Sudden withdrawal may precipitate recurrence of preexisting symptoms such as anxiety, anorexia, or insomnia; or withdrawal reactions such as vomiting, ataxia, tremors, muscle twitching and, rarely, epileptiform seizures. Should meprobamate cause drowsiness or visual disturbances, reduce dosage and avoid operation of motor vehicles, machinery or other activity requiring alertness. Effects of excessive alcohol consumption may be increased by meprobamate. Appropriate caution is recommended with patients prone to excessive drinking. In patients prone to both petit and grand mal epilepsy meprobamate may precipitate grand mal attacks. Prescribe cautiously and in small quantities to patients with suicidal tendencies.
Side Effects: Overstimulation of the central nervous system, jitteriness and insomnia or drowsiness. Dextro-amphetamine sulfate: Insomnia, excitability, and increased motor activity are common and ordinarily mild side effects. Confusion, anxiety, aggressiveness, increased libido, and hallucinations have also been observed, especially in mentally ill patients. Rebound fatigue and depression may follow central stimulation. Other effects may include dry mouth, anorexia, nausea, vomiting, diarrhea, and increased cardiovascular reactivity.

Meprobamate: Drowsiness may occur and can be associated with ataxia; the symptom can usually be controlled by decreasing the dose, or by concomitant administration of central stimulants. Allergic or idiosyncratic reactions: maculopapular rash, acute nonthrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever, transient leukopenia. A case of fatal bullous dermatitis, following administration of meprobamate and prednisolone, has been reported. Hypersensitivity has produced fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anuria, stomatitis, proctitis (1 case), anaphylaxis, agranulocytosis and thrombocytopenic purpura, and a fatal instance of aplastic anemia, but only when other drugs known to elicit these conditions were given concomitantly. Fast EEG activity, usually after excessive dosage. Impairment of visual accommodation. Massive overdosage may produce drowsiness, lethargy, stupor, ataxia, coma, shock, vasomotor and respiratory collapse.

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X-RAY CONFERENCE

Presented as a regular feature of *The Journal*, X-ray Conference is a series of short talks on procedure and radiologic diagnosis, edited by Erich K. Lang, M.D.

Primary Carcinoma of the Ureter

ERICH K. LANG, M.D.
*Indianapolis**

This 55-year-old male patient saw his urologist for the fourth time in the past three years, complaining of hematuria and dull flank pain. On two previous occasions, the patient had been hospitalized and the urologic workup, consisting of an intravenous pyelogram on one occasion, and a retrograde pyelogram on the other occasion, had been carried out. The presence of hematuria had been confirmed, and the source of bleeding traced to the left upper collecting system. Minor changes of the calices had been interpreted as manifestations of a pyelonephritis, and the patient had been subjected to treatment with urinary antibiotics. Each time this treatment appeared to improve the condition, and the patient was discharged. The third visit did not result in hospitalization, however, a complete workup was performed on an outpatient basis. Retrograde pyelograms again demonstrated blunting of the mid and inferior calyceal group of the left kidney, suggesting the presence of pyelonephritis. Antibiotic therapy was instituted, and the patient was discharged after interval improvement.

During the present hospitalization, weight loss was observed as one of the salient features. Careful examination of the abdomen suggested the possibility of a palpable mass in the left flank. A retrograde ureterogram was performed, (Figure 1) and demonstrated an obstructing lesion at the junction of the mid and lower one-third of the left ureter. The classical wine-glass shaped appearance of the ureteral segment below the obstructing lesion suggested the presence of a primary tumor of the ureter, most likely a papillary carcinoma.

Review of two previous retrograde pyelograms and one previous intravenous urogram failed to demonstrate the lesion, however, it was

FIGURE 1

A RETROGRADE ureterogram demonstrates the goblet appearance of the ureter distal to the obstruction by what appears to be an intralumenal lesion. This characteristic wine-glass or goblet appearance suggests the presence of a ureteral papilloma or papillary carcinoma of the ureter, and is considered of differential diagnostic significance against radiolucent calculi of the ureter, which show a collapse of the ureter distal to the obstructing lesion.

* Radiologist, Methodist Hospital, Indianapolis 46207.

noted that the left ureter was never adequately delineated. The lack of filling of the left ureter was discarded as a phenomenon secondary to peristaltic activity.

Extirpation confirmed the presence of a primary papillary carcinoma of the ureter. The ureter did not appear to be fixed against retroperitoneal structures, and could readily be resected. A nephroureterectomy was carried out. Follow-up examinations over the next 12 months showed no evidence of recurrent disease. The bladder, in particular, was scrutinized cystoscopically and there was no evidence of papillary implants.

Discussion

The diagnosis of primary carcinoma of the ureter presents vexing problems to the clinician and radiologist. Lack of filling of the ureter, the first and early sign of a ureteral lesion, is often dismissed as peristaltic activity. Retrograde ureterograms properly performed are capable of demonstrating primary and secondary lesions involving the ureter. Benign papillomas and papillary carcinomas result in a characteristic goblet or wine-glass appearance of the ureter. The segment below the obstructing lesion is markedly dilated. This is an important differential diagnostic criterion against radiolucent calculi, which may also present as an obstructing lesion, but are characterized by collapse of the ureter below the obstructing radiolucent calculus. Coiling of the ureteral catheter below the lesion is a frequent occurrence, and has been advocated by many authors as a diagnostic criterion suggesting the presence of a papilloma or papillary carcinoma.

The majority of papillary carcinomas and papillomas are seen in the distal one-third of the ureter; the lesion is more frequent in the older age group. Polyps, conversely, are more frequently seen in the younger age group and may be seen in any segment of the ureter. The presence or absence of hydronephrosis and non-function of the kidney on intravenous urograms is solely related to the amount of obstruction caused by the lesion, and not necessarily diagnostic. ◄

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Precautions: Antihypertensive therapy with Regroton should always be initiated cautiously in postsympathectomy patients and in patients receiving ganglionic blocking agents, other potent antihypertensive drugs, or curare. Reduce dosage of concomitant antihypertensive agents by at least one-half. To avoid hypotension during surgery, discontinue Regroton therapy two weeks prior to elective surgical procedures. In emergency surgery, use, if needed, anticholinergic or adrenergic drugs or other supportive measures as indicated. Because of the possibility of progression of renal damage, periodic kidney function tests are indicated. Discontinue if the BUN rises or liver dysfunction is aggravated. Hepatic coma may be precipitated. Electrolyte imbalance, sodium and/or potassium depletion may occur. If potassium depletion should occur during therapy, Regroton should be discontinued and potassium supplements given, provided the patient does not have marked oliguria. Take particular care in cirrhosis or severe ischemic heart disease and in patients receiving corticosteroids, ACTH, or digitalis. Salt restriction is not recommended. Use cautiously in patients with ulcerative colitis or gallstones (biliary colic may be precipitated). Bronchial asthma may occur in susceptible patients. **Adverse Reactions:** The drug is generally well tolerated. The most frequent side effects are nausea, gastric irritation, vomiting, diarrhea, constipation, muscle cramps, headache, dizziness and acute gout. Other potential side effects include angina pectoris, anxiety, depression, bradycardia and ectopic cardiac rhythms (especially when used with digitalis), drowsiness, dull sensorium, hyperglycemia and glycosuria, hyperuricemia, lassitude, restlessness, transient myopia, impotence or dysuria, orthostatic hypotension which may be potentiated when chlorthalidone is combined with alcohol, barbiturates or narcotics, leukopenia, aplastic anemia, skin rashes, thrombocytopenia, agranulocytosis, nasal stuffiness, increased gastric secretions, nightmare, purpura, urticaria, ecchymosis, weakness, uveitis, optic atrophy and glaucoma, and pruritus. Eruptions and/or flushing of the skin, a reversible paralysis agitans-like syndrome, blurred vision, conjunctival injection, increased susceptibility to colds, dyspnea, weight gain, decreased libido, dryness of the mouth, deafness, anorexia, and pancreatitis when epigastric pain or unexplained G.I. symptoms develop after prolonged administration. Jaundice, xanthopsia, paresthesia, photosensitization and necrotizing angiitis are possible. **Average Dosage:** One tablet daily with breakfast. **Availability:** Pink, single-scored tablets in bottles of 100 and 1000. (B) 46-600-B
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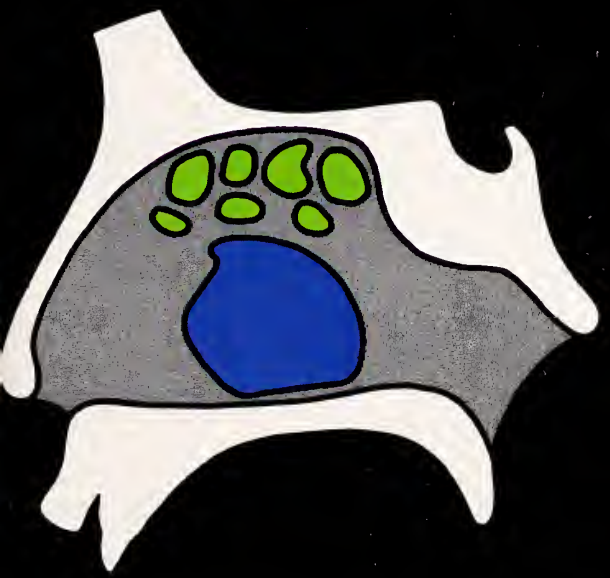
(One of a series of ads being run in key Hoosier newspapers)

Sources of sinus headache

REGION OF SENSATION

FRONTAL SINUS—headache localized over the frontal region, commonly beginning in the morning. Eyes painful to touch, may be slight swelling over eyes, puffy eyelids.

SPHENOID SINUS—most difficult to diagnose. Headache or sense of pressure over vertex. May be pain in ear or mastoid region.



MAXILLARY SINUS—headache and tenderness under eyes at top of cheekbones, usually starting in early afternoon. Possible swelling of cheek. Pain in jaw and back teeth.

ETHMOID SINUS—headache, tightness in upper part of bridge of nose and well down its sides. Pain, deep-seated behind the eyes and in inner corners of the eyes.

TURBINATES—pain along medial and lateral walls of the inside of the nose. Headache in frontal region, along supraorbital ridge, a feeling of fullness in the head.

Source of symptomatic relief

SINUTAB

Sinus headache is often a reflection of congestion in the nasal mucosa. The pain that results in the various regions of the head may help in determining the particular structure(s) responsible. The Sinutab formula is specifically designed for symptomatic relief of sinus headache and nasal congestion. **Sinutab** *not only* **provides an effective decongestant** — to reduce mucosal engorgement and facilitate freer breathing — *and* **an antihistamine** — to help reduce edema and excessive secretions — but it *also* provides, in contrast to other leading decongestants, two **analgesics** for immediate relief of pain and discomfort.

And, too, the Sinutab dosage schedule of 2 tablets, *q.* 4 *h.* permits controlled and continuing analgesic relief.

Adverse Reactions: Epigastric distress, drowsiness, dizziness, insomnia and nervousness.

Precautions: Instruct patients not to drive or operate machinery if drowsiness occurs. Use with caution in patients with thyroid disease, heart disease, hypertension, diabetes or kidney disease. Excessive dosage or prolonged use may cause kidney damage.

Dosage: Adults—2 tablets every 4 hours.

Each tablet contains 150 mg. acetaminophen, 150 mg. phenacetin, 25 mg. phenylpropanolamine HCl, and 22 mg. phenyltoloxamine citrate.

SPECIFIC FORMULA

SINUTAB®

FOR SINUS HEADACHE

Also Available on Prescription:

Sinutab® with Codeine.* Each tablet contains 15 mg. (¼ gr.) codeine phosphate (Warning: May be habit forming), 150 mg. acetaminophen, 150 mg. phenacetin, 25 mg. phenylpropanolamine HCl, and 22 mg. phenyltoloxamine citrate.

Sinutab® Pediatric Suspension. Each 5 ml. teaspoonful contains 300 mg. acetaminophen, 12.5 mg. phenylpropanolamine HCl, and 10 mg. phenyltoloxamine citrate.

*Subject to Federal Narcotics Regulations.

For 1 complimentary bottle of 30 Sinutab tablets, write: J. S. Travis, Warner-Chilcott Laboratories, Morris Plains, N.J. 07950. Please mention this journal.

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Each capsule contains:

Vitamin B_1 (as Thiamine Mononitrate)	10 mg
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Vitamin B_6 (Pyridoxine HCl)	2 mg
Vitamin B_{12} Crystalline	4 mcgm
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Niacinamide	100 mg
Calcium Pantothenate	20 mg

Recommended intake: Adults, 1 capsule daily, for the treatment of vitamin deficiencies. Supplied in decorative "reminder" jars of 30 and 100; bottles of 500.

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The Journal of the INDIANA STATE MEDICAL ASSOCIATION

Devoted to the interests of the medical profession of Indiana

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The Markle Foundation

THE John and Mary R. Markle Foundation was established 40 years ago by Mr. John Markle and named for him and his wife. During the 40 years, it has been active in the support of medical research and during the past 20 years, has supported a special program entitled "Markle Scholars in Academic Medicine."

John M. Russell, president of the foundation, reports this year that the original $3 million gift, together with sums subsequently received and as a result of careful investment policy, has reached a market value in excess of $44 million, and in the process has distributed some $31 million in grants, mostly for medical projects.

The history of the fund's beneficences would lead one to think of the foundation as oriented entirely in the medical field. It has, however, a charter which allows its directors the greatest possible latitude. The fact that medicine has been its chief beneficiary and the wording of its charter which authorizes it "to promote the advancement and diffusion of knowledge. . . and. . . the general good of mankind," seems to indicate a high regard on the part of the directors for the role of good medicine in the general good of mankind.

During the past year, 25 young medical scientists planning careers of teaching and research in medical schools were appointed Markle Scholars and received grants of $30,000 each to cover a scholarship term of five years. Since 1948, 456 Markle Scholars in 89 medical schools have been underwritten in their postgraduate and clinical studies for a total expenditure of approximately $14 million.

Of these scholars, 22 now hold the post of dean or higher, 69 are now department heads. The program functions admirably in producing teachers and researchers.

Mr. Russell, in his latest annual report, outlines changes in the public's attitude toward medicine during the past 60 years. At the turn of the century people were interested primarily in having more doctors. Later they were concerned with having more good doctors and at present everyone, it seems, is interested in the eradication of disease. This, Mr. Russell thinks, is the basis for tremendous applications of public money to research and the swamping of medical schools with research projects to the detriment of good teaching and good medical care.

Mr. Russell thinks the public mood is changing again, this time toward paying closer attention to the sick. This, in his opinion, is the reason behind the emphasis on education and training of doctors, and increasing talk of new systems of medical care, of cooperation between various competing health services, of developing new types of medical assistants, of establishing new medical centers, of new and more effective ways of keeping health personnel up to date, of new ways of caring for ambulatory cases, of new ways to look after the old, of ways to make use of new equipment like computers, etc., etc.

Mr. Russell's analysis is hopeful. Medical research is important, highly important. It should not, however, be allowed to monopolize all facilities and crowd out the only real mission medicine has—the care of the sick. From his words it may be concluded that the research support activities of the Markle Foundation are well directed.

School-bus Safety

SCHOOL-BUS safety has been promoted by statute and by educational campaigns, by highway markers, by almost universal care on the part of all drivers until it has been taken for

granted until recently. Three serious bus wrecks in Iowa, Florida and Oklahoma have demonstrated the need for increased measures for safety and perhaps for measures of an entirely different type than those of the past.

About 50 children died in bus accidents last year—15 in vehicle accidents and about 35 as pedestrians getting on or off buses.

The AMA *Today's Health* magazine has outlined the problem and recommended improvements.

The distinctive yellow exterior, the multiple exterior lighting, the "red alert" flashing lights to announce unloading of passengers and the emergency exits have all produced an exterior appearance of safety while not enough attention has been allotted to safety features within.

Now comes the realization that the inside structure of school-buses is downright dangerous—dozens of hard, sharp, hostile objects, imperfectly anchored seats, lack of seat belts, overcrowding and standing passengers, lack of discipline and uncontrolled passengers—and many other things that should be improved.

School transportation bus-accident figures show that damages are low as compared with ordinary highway experience. However, the only acceptable accident figure for school buses is zero. And, even though such injuries are low in incidence, they have increased by 75% in five years while there has been an increase of only 45% in the number of students transported.

The Institute of Transportation and Traffic Engineering of the University of California at Los Angeles has just published its first report on the subject. Their experts think that the greatest single contribution to safety will be a strong, well-anchored safety seat. It should have a well-padded back at least 28 inches high, padded armrests and be free of rigid protruding structures such as grips and rails.

Seat belts, they say, are a necessity, but should not be used with the present low-backed seats, and would be better if combined with a shoulder restraint.

The UCLA report also recommends elimination or padding of all rigid and protruding inside structures, stay-put windows, prohibition of standing riders, four full-size escape routes and better engineering to prevent the bus and other vehicles from underriding or overriding each other.

While improvements would add to the cost, it is thought that, if uniform requirements could be made on a national basis, the total cost of bus construction would not be more, and might be less.

Safety requirements differ among the various states and in some instances exceed the federal standards. It would be better to have one national standard. This would enable the bus manufacturers to standardize their construction and come up with safer buses at less cost. Variations in specifications from state to state make bus building an almost custom operation.

Improvements can be anticipated. *Today's Health* reminds us that 35 years ago there were wooden-bodied buses, with fabric covered roofs, a center bench and non-safety glass, and no special protection on the highway. School buses have come a long way. They only need a little more improvement.

Guest Editorials

The Cheerful Doctor

DOCTORS are a lot grouchier than they used to be. I have been considering the matter for some months by observation, introspection and by review of past experience. I am convinced that I see an increase in grouchiness. More doctors are grouchy and all doctors are grouchier and they are grouchy for longer periods.

I think this is because, day after day, practically all doctors see a very large number of patients and are too much pressed. They have so much more help, mechanical, electronic and human, that they are freed from the comfort of routine duties in order to undergo the torment of repeatedly making serious value judgments. And they do not have any recovery time between patients. They are called upon to make this continuing series of important observations and decisions but they no longer have a long buggy ride through the countryside to contemplate the problems. In fact, they do not even have a short ride in the car between house calls anymore.

So nearly all doctors have become much too irritable and grim and sullen and difficult. Some are rationalizing their ill temper by saying that medicine is a serious business and demands a solemn practitioner. The problems of the practitioner do demand that he be serious but not that he be solemn. Of course there are occasions for solemnity or even gravity of deportment but they are not frequent. A proper concern for the patient's difficulties does not mean a constant long face. It is possible, indeed essential, to be both cheerful and serious. It is essential to avoid irritability and grouchiness at all costs.

By the time a man has achieved the status of the practicing physician, his education and experience should have led to the formulation of a satisfactory working outlook on the world. If the doctor's *Weltanschauung* is not adequate to maintain a cheerful front, he probably should not be practicing. His opportunities in life demand that he be a gentleman and this, also, should call for a cheerful attitude toward his neighbor. To repeat, the doctor must be serious most of the time but he need only occasionally be solemn.

My studies have a practical aspect. Most doctors are studying and working hard to add to their

knowledge, to learn new concepts and new techniques in order to be more effective practitioners. I offer a method which will produce an immediate and significant all-around improvement in diagnosis and therapy: *be cheerful.*

This will produce a distinct betterment in all the techniques used in dealing with patients. The interrogation and examination will produce more information by augmenting your perception and the patient's cooperation. Winning friends and influencing people may have such diverse good effects as to produce an earlier visualization of the duodenum for the roentgenologist or a quicker and more accurate look at the mucosa for the endoscopist. Of course such an attitude will produce more cooperation in following orders and more patience in continuing your regimen. Cheerfulness is directly therapeutic in a majority of cases and an important part of palliation in the rest. It speeds each task and makes each contact more pleasant so that the day ends with less fatigue.

Practically all of these considerations can be extended to the doctor's relations with his colleagues. In dealing with consultants, associates, partners, house staff and previous attending physicians, a cheerful approach improves the yield, enhances understanding, speeds the process and makes the job a pleasant one. It gets the other doctor *involved* so that he wants to contribute and it can spread from doctor to doctor so that the increase is greater than arithmetic.

The same is true of the physician's relations with the growing number of allied health professionals and with all others who work in the field of health care. The increase of their interest and involvement improves diagnosis and therapy, makes the patient more comfortable and lightens the burden of all concerned.

All this cheerfulness does not consist of a light-minded or jocular attitude but of a sanguine approach based on a hopeful outlook and a serious attempt to be a help-bringer. The cheerful doctor need not be less exacting or less firm or less impressive than the grim and ponderous bearer of the caduceus. There is certainly no room in medicine for the polyanna approach, for one must always look out for the worst. But one can always hope for the best—and to excellent advantage. The look of concern need not displace the smile.

It is not my contention that the practitioner force a change in his personality or alter his character. The physician who is not naturally outgoing may be cheerful without abandoning his natural reserve. And the extrovert can be hopeful without being hilarious.

My observations, introspections and discussions do convince me that a doctor ought to make a studied effort to go about his daily rounds with a cheerful front. He ought to make a planned resolution each day to avoid irritability and grouchiness. Smile. and the world smiles with you—and tries to be cooperative—**Carl B. Lechner, M.D., Editor,** *Pennsylvania Medicine* **70:92, April, 1967. Reprinted with permission.**

AMA Volunteer Physicians for Viet Nam

AMA Volunteer Physicians for Viet Nam is a program for supplying medical care to the civilian population of South Viet Nam through the volunteer services of U.S. physicians.

It is administered by the American Medical Association and financed by the United States Agency for International Development (USAID).

Physicians sent to South Viet Nam under the program serve a 60-day tour of duty at one of 18 provincial civilian hospitals. The volunteer receives only his transportation and an expense allowance of 10 dollars a day; otherwise his services are entirely unpaid.

At the hospitals the volunteers will work with teams of military physicians and corpsmen. These teams, assigned to USAID for service in provincial civilian hospitals, provide continuity in the volunteer program.

Twenty-four to 32 physicians are needed every 60 days to keep hospital staffs at full strength. Most needed are general practitioners, internists, general surgeons and orthopedic surgeons. Small numbers of specialists in other fields are needed from time to time and inquiries are invited in anticipation of future demands. Non-physicians are not recruited.

Information about the program may be obtained by contacting: AMA Volunteer Physicians for Viet Nam, American Medical Association, 535 N. Dearborn St., Chicago, Illinois 60610. . . . **(AMA suggested editorial.)**

Editorial Notes...

The Health Insurance Council reports that almost 149 million Americans below age 65 were covered by private hospital expense insurance at the end of 1966. This was 85% of the United States civilian, non-institutional population of that age group, and over seven million more than the number covered the preceding year. Most of the remaining 15% include the indigent and near-indigent, as well as dependents of military personnel.

Lincocin (lincomycin, Upjohn) is reported to have produced good to excellent results in control of coexistent infections in patients with tuberculosis. Researchers in Boston City Hospital outlined their studies in the August issue of *Clinical Medicine.* Sixteen patients had excellent results, 28 were rated as good and only five were recorded as poor. Eleven had had previous antibiotic treatment for their coexistent infections. ◄

Meet The Journal Staff

Dr. Frank H. Coble, ophthalmologist of Richmond, Indiana, was chosen as a member of the Editorial Board on January 1, 1967.

Dr. Coble was born in New Castle, Indiana, and had his early education there, before being graduated with a B.S. degree from DePauw University in 1931. He was granted the M.D. degree by Indiana University in 1934.

He served an internship at the Methodist Hospital of Indianapolis, and a general residency at the Mansfield (Ohio) General Hospital. He was in the general practice of medicine in Richmond for six years, following which he studied ophthalmology in the Postgraduate Medical School of the University of Pennsylvania.

After completing a residency in ophthalmology at the University of Cincinnati, with services at the Cincinnati General Hospital and the Children's Hospital, he has limited his practice in Richmond to ophthalmology since 1945.

Dr. Coble is a dedicated and enthusiastic aviator and has been national president of the Flying Physicians Association.

He is past president of the Wayne-Union County Medical Society, a past president of the Reid Memorial Hospital medical staff and has served as Chief of the Surgical Section of that hospital.

Dr. Jack W. Hickman began his first term of service on the Editorial Board on January 1, 1967. Prior to this official recognition, he had been a steady contributor to *The Journal* for many years.

Dr. Hickman is a native of Indianapolis. He attended Broad Ripple High School, studied for three years at Wabash College, acquired a B.S. degree from Indiana University in 1952 and the M.D. degree in 1955.

After an internship at the Indianapolis General Hospital, he was a Fellow in internal medicine at the Lahey Clinic for two years and was then chief resident in medicine at the Indianapolis General.

He is now Director of Medical Education at the Marion County General Hospital and is Associate Professor, Department of Internal Medicine, Indiana University School of Medicine. Dr. Hickman is also Director of Postgraduate Medical Education, Indiana University School of Medicine. He is a member of the medical staffs of the Methodist and St. Vincent's Hospitals, Indianapolis.

Dr. Hickman is a Fellow of the American College of Physicians and a diplomate of the American Board of Internal Medicine. He is a member of the American Diabetes Association and the Association of American Medical Colleges.

Dr. Hickman performs a valuable service for *The Journal* by maintaining close clinical liaison with the faculty and clinical services of Indiana University School of Medicine. He is also editor of "Gleaned from the British Medical Journal", a series of abstracts from important scientific articles.

WHAT DOES GALVANIC SKIN RESISTANCE DEMONSTRATE ABOUT THE EFFECT OF VALIUM (diazepam)?

Galvanic skin resistance... one measure of the Valium (diazepam) effect in reducing the somatic response to acute stress[1,2]

The subjective value of Valium (diazepam) has been proved by many clinical and empirical evaluations. Now, also objective criteria such as used in other areas of scientific research have demonstrated the effectiveness of Valium (diazepam) in reducing certain somatic responses to acute stress.

Devised as a research tool in psychosomatic medicine, this interesting method records respiratory excursions, galvanic skin resistance, cardiac activity and finger pulse volume as physical responses to stress. These autonomic nervous system responses to a standardized stressor—a film dealing with life-threatening incidents—are continuously monitored on the polygraph.

This gives a graphic representation of changes which the body may undergo in reacting to stress. The application of modern statistical analysis to these graphs provides a yardstick by which the calming effect of Valium (diazepam) can be measured quantitatively.

Before prescribing, please consult complete product information, a summary of which follows:

Contraindications: Infants, patients with a history of convulsive disorders, glaucoma or known hypersensitivity to drug.

Warning: Not of value in the treatment of psychotic patients, and should not be employed in lieu of appropriate treatment.

Precautions: Limit dosage to smallest effective amount in elderly or debilitated patients (not more than 1 mg, one or two times daily initially) to preclude ataxia or oversedation, increasing gradually as needed or tolerated. As is true of all CNS-acting drugs, until correct maintenance dosage is established, advise patients against possibly hazardous procedures requiring complete mental alertness or physical coordination. Driving during therapy not recommended. In general, concurrent use with other psychotropic agents is not recommended. If such combination therapy is used, carefully consider individual pharmacologic effects—particularly with known compounds which may potentiate action of Valium (diazepam), such as phenothiazines, barbiturates, MAO inhibitors and other antidepressants. Advise patients against simultaneous ingestion of alcohol or other CNS depressants. Safe use in pregnancy not established. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Observe usual precautions in impaired renal or hepatic function. Periodic blood counts and liver function tests advisable in long-term use. Cease therapy gradually.

Side Effects: Side effects (usually dose-related) are fatigue, drowsiness and ataxia. Also reported: mild nausea, dizziness, blurred vision, diplopia, headache, incontinence, slurred speech, tremor and skin rash; paradoxical reactions (excitement, depression, stimulation, sleep disturbances, acute hyperexcited states, hallucinations); changes in EEG patterns during and after drug treatment. Abrupt cessation after prolonged overdosage may produce withdrawal symptoms (convulsions, tremor, abdominal and muscle cramps, vomiting, sweating) similar to those seen with barbiturates, meprobamate and chlordiazepoxide HCl.

Dosage—*Adults:* Mild to moderate psychoneurotic reactions, 2 to 5 mg b.i.d. or t.i.d.; severe psychoneurotic reactions, 5 to 10 mg t.i.d. or q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; muscle spasm with cerebral palsy or athetosis, 2 to 10 mg t.i.d. or q.i.d. *Geriatric patients:* 1 or 2 mg/day initially, increase gradually as needed and tolerated. (See *Precautions.*)

Supplied: Valium® (diazepam) Tablets, 2 mg, 5 mg and 10 mg; bottles of 50 and 500.

Roche Laboratories, Division of Hoffmann-La Roche Inc.
Nutley, N.J. 07110

References: 1. Selesnick, S. T., and Clemens, T. L.: From research film "Motion Picture Films in Psychosomatic Research," available from Roche Laboratories. 2. Clemens, T. L., and Selesnick, S. T.: *Dis. Nerv. System, 28*:98, 1967.

ROCHE

VALIUM® (diazepam) Roche®

useful for somatic symptoms of psychic tension

President's Page

Your president has been privileged to attend many state and national conferences having to do with matters which concern the medical profession — some directly, others indirectly. The most recent of these was the first National Conference on Health Care for the Poor. In common with most of these meetings, the program in all its aspects was well thought out and excellently presented by many outstanding leaders of our profession, government, labor, industry, education, etc.

In one respect, however, this conference was different, or at least it seemed so to me and to other participants with whom I consulted. This difference was noted time and again in addresses by a number of the panelists. It can be expressed by one sentence in a recent press report from Washington *(Chicago Sun Times* — December 19, 1967. "Most of them agreed with Rep. Rosenthal (D-N.Y.) that the whole system of American health care is in crisis and has to be restructured." Strong emphasis was placed on the urgency for action now!

To me, this constitutes, among other things, a strong attack on our present fee for service system. It means a system where physicians are salaried, where they work in groups set-up and run by government agencies in locations picked by these agencies. There are at present pilot plans such as this in operation in various parts of the country.

Now, I am sure that all of us recognize there are many unmet needs for better health care in our country, and I am sure that there are instances where such clinics are a good practical method of caring for their needs. However, in my humble opinion, history demonstrates that orderly evolution instead of revolution produces the best results. In other words never tear down or destroy what has been built up through long years of experience unless and until there is something better to substitute for it.

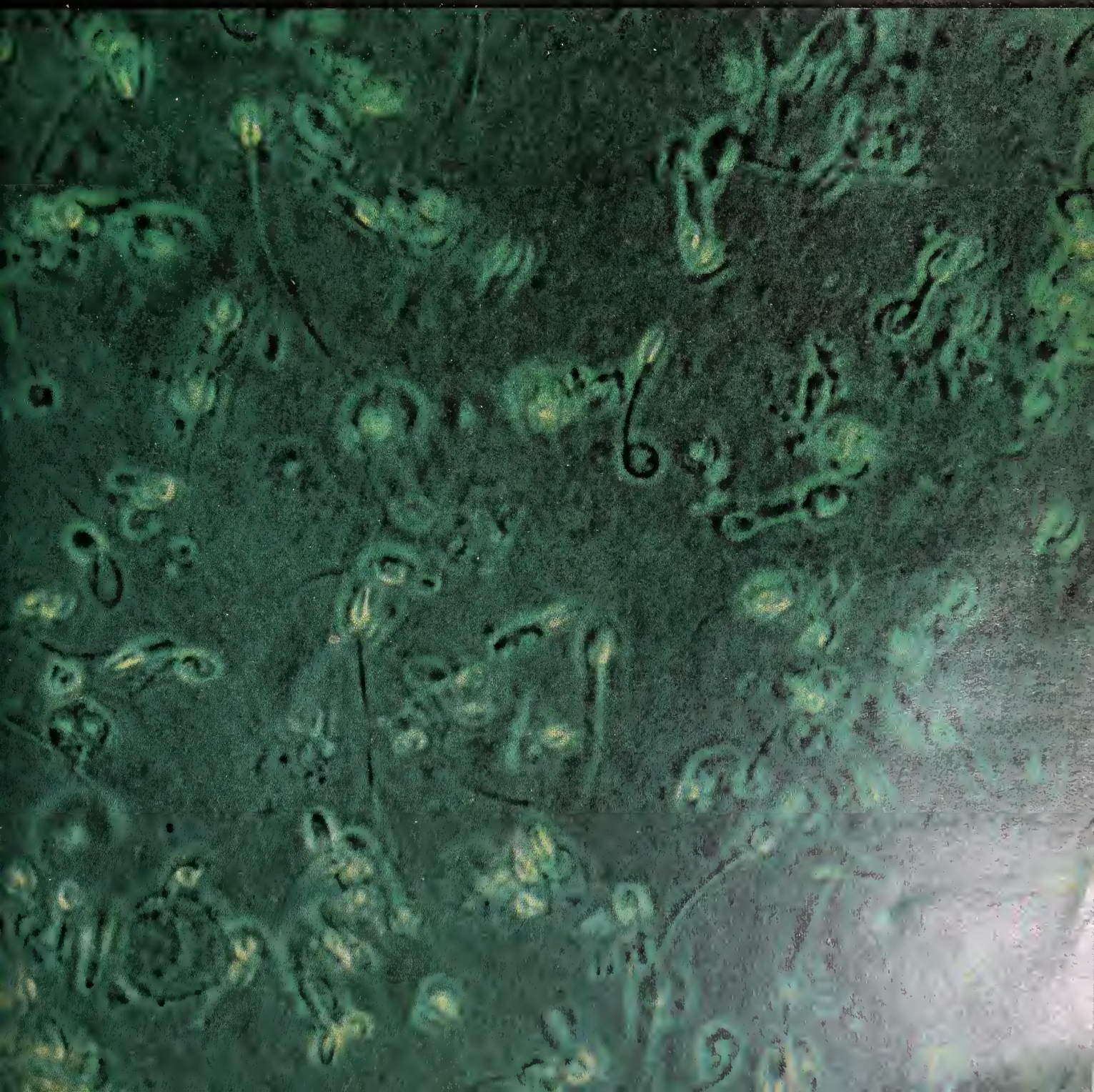
It is my belief that through the democratic processes of our county and state societies and the AMA, steady progress is and will be made in solving our health problems. My appeal is that each of you increase your individual and collective efforts to solve your problems and to support the efforts of your state societies and the AMA in working out practical solutions for the health needs of every section of our country. The American people have traditionally solved their troubles with unity and cooperation. We can and will continue to do so.

G. O. Larson M.D.

When the talk turns to oral contraceptives, it makes medical sense to remember low-dose Norinyl®-1.

(norethindrone 1mg c̄ mestranol 0.05mg.)

Turn page for contraindications, precautions and side effects



Reduction of oral contraceptive dosage to the lowest effective levels is a well-accepted principle of conservative medical practice. In keeping with this view, Norinyl is now also available as Norinyl-1, containing exactly one half the previous dosage of norethindrone and mestranol. Clinical experience has established that effective fertility control can be achieved with the same degree of reliability and safety with new Norinyl-1 when taken as directed.

What about switching patients from higher dosage forms?

In transferring patients to low-dose Norinyl-1 from higher-dosage oral contraceptives, some breakthrough bleeding may occur in the early cycles. In the majority of cases the bleeding episode is mild and self-limited. The long-term advantages of the lower dosage form should be weighed against the inconvenience of possible breakthrough bleeding in the individual patient.

Prescribing Information

Contraindications: Patients with any symptoms or history of thrombophlebitis, pulmonary embolism, liver dysfunction or disease, carcinoma of breast or genital organs, or undiagnosed vaginal bleeding.

Warnings: Discontinue medication pending examination if there is sudden partial or complete loss of vision, proptosis, diplopia or migraine. If examination reveals papilledema or retinal vascular lesions, medication should be withdrawn. The safety of Norinyl-1 in pregnancy has not been demonstrated. If a patient misses two consecutive periods, pregnancy should be ruled out before continuing the medication. If she has not adhered to the prescribed schedule, pregnancy should be considered at the first missed period. Active ingredients of oral contraceptives have been detected in the milk of mothers who received these drugs; the significance to infants has not been determined.

Precautions: Pretreatment physical should include examination of the breasts and pelvic organs, as well as a Papanicolaou smear. If endocrine or liver function tests are abnormal during therapy, repeat tests are recommended after the drug has been withdrawn for two months. Following administration of drug, preexisting uterine fibromyomata may increase in size. Careful observation and caution are required for patients with symptoms or history of epilepsy, migraine, asthma, cardiac or renal dysfunction, cerebrovascular accident, psychic depression, and diabetes. In cases of undiagnosed vaginal bleeding, adequate diagnostic measures are indicated. Possible long-term effects of the drug on pituitary, ovarian, adrenal, hepatic or uterine function must await further studies. The physician should be alert to the earliest manifestations of thrombophlebitis and pulmonary embolism. The drug should be used judiciously in those young patients in whom bone growth is not complete. The age of the patient constitutes no absolute limiting factor, although treatment with Norinyl-1 may mask symptoms of the climacteric. The pathologist should be advised of Norinyl-1 therapy when relevant specimens are submitted.

Side Effects: The following have been observed with varying incidence in patients receiving oral contraceptives: nausea, vomiting, gastrointestinal symptoms, breakthrough bleeding, spotting, change in menstrual flow, amenorrhea, edema, chloasma or melasma, breast changes (tenderness, enlargement and secretion), change in weight (increase or decrease), changes in cervical erosion and cervical secretions, suppression of lactation when given immediately postpartum, cholestatic jaundice, migraine, rash (allergic), rise in blood pressure in susceptible individuals, mental depression. Although the following side effects have been reported in users of oral contraceptives, no cause and effect relationship has been established: anovulation posttreatment, premenstruallike syndrome, changes in libido, changes in appetite, cystitis-like syndrome, headache, nervousness, dizziness, fatigue, backache, hirsutism, loss of scalp hair, erythema multiforme, erythema nodosum, hemorrhagic eruption, and itching. The following occurrences have been observed in users of oral contraceptives (a cause and effect relationship has neither been established nor disproved): thrombophlebitis, pulmonary embolism, neuroocular lesions.

The following laboratory tests may be altered by the use of oral contraceptives: increased sulfobromophthalein and other hepatic function tests, coagulation tests (increase in prothrombin, factors VII, VIII, IX and X), thyroid function (increase in PBI and butanol extractable protein-bound iodine and decrease in T^3 values), metyrapone test, pregnanediol determination.

norethindrone — an original steroid from

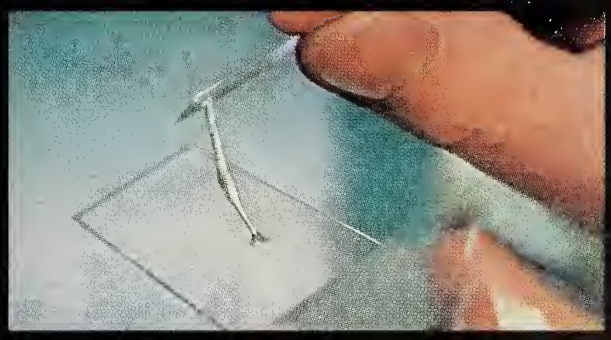
SYNTEX

LABORATORIES INC., PALO ALTO, CALIF.

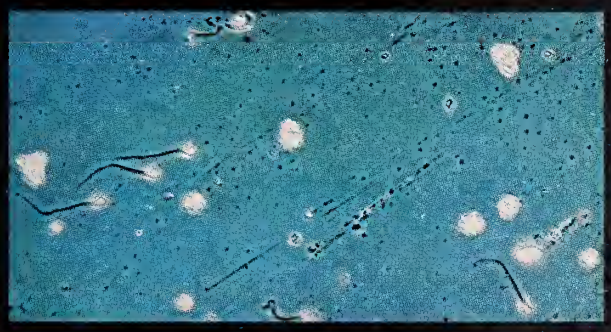
Here's why Norinyl-1 makes medical sense.

The effectiveness of Norinyl-1 as a low-dose oral contraceptive may be explained by its possible multiple action. In addition to its primary action of suppression of ovulation, Norinyl-1 may offer additional protective mechanisms... (1) creation of a cervical mucus that may be hostile to sperm penetration, and (2) development of an endometrium that may be out of phase with nidation. These effects are illustrated below.

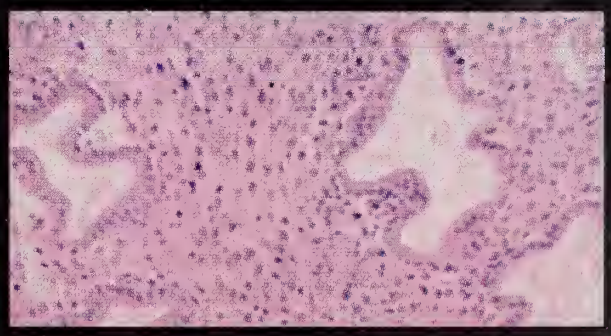
Untreated Patient



Cervical mucus at midcycle is usually thin and watery, with Spinnbarkeit (stretchability) of 15 to 20 cm.

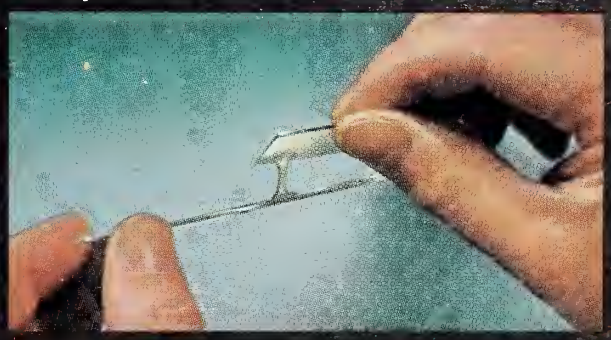


Spermatozoa appear healthy, active, freemoving.

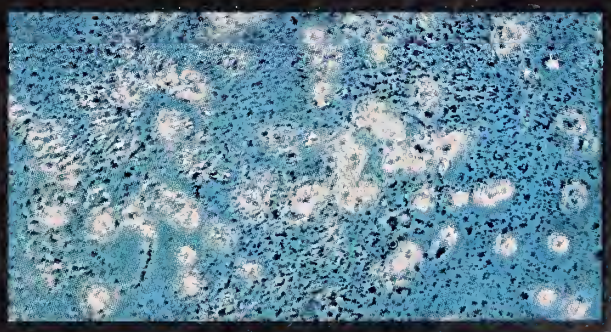


Endometrium of untreated patient is receptive to the fertilized ovum during secretory phase.

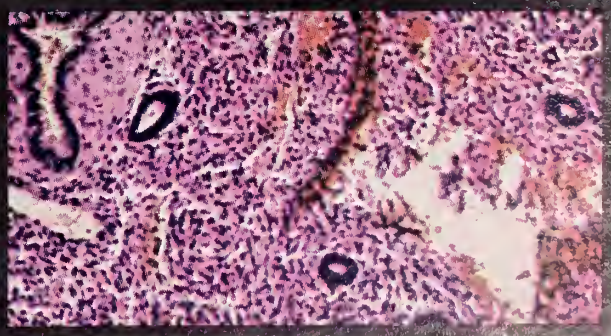
Norinyl-1 Patient



Cervical mucus at midcycle is scanty, viscous—with Spinnbarkeit of 1 cm. or less.



Immobile spermatozoa as they appear in cervical mucus taken from patient treated with Norinyl-1.



Norethindrone in Norinyl-1 accelerates secretory phase, suppresses glandular and vascular development.

Norinyl®-1 tablets
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Synalar combines the advantage of earlier corticosteroid compounds with unique structural innovations. As a result, preparations of Synalar 0.01% and Synalar 0.025% have been reported to be more potent topically and significantly more effective than hydrocortisone 1.0%. The unique fluocinolone acetonide molecule provides one of the most useful topical corticosteroids for everyday practice.

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The clinical efficacy of Synalar has been extensively documented in the world literature. Commonly encountered diseases such as allergic and contact dermatitis, eczematous and seborrheic dermatitis, and neurodermatitis respond rapidly to Synalar, often where previous therapy with other topical corticosteroids has failed.

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Turn page for contraindicati[illegible] warnings and side effec

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Product Information

Contraindications: Tuberculous, fungal, and most viral lesions of the skin (including herpes simplex, vaccinia, and varicella). Not for ophthalmic use. Contraindicated in individuals with a history of hypersensitivity to any of the components. *Precautions:* Synalar preparations are virtually nonsensitizing and nonirritating. However, the solution may produce burning or stinging when applied to denuded or fissured areas. In some patients with dry lesions, the solution may increase dryness, scaling or itching. Where severe local infection or systemic infection exists, the use of systemic antibiotics should be considered, based on susceptibility testing. While topical steroids have not been reported to have an adverse effect on pregnancy, the safety of their use on pregnant females has not absolutely been established. Therefore, they should not be used extensively on pregnant patients, in large amounts, or for prolonged periods of time. *Side Effects:* Side effects are uncommon with topical corticosteroids. As with all drugs, however, a few patients may react unfavorably to Synalar under certain conditions. In such cases the agent should be discontinued and appropriate measures taken. *Availability:* Synalar (fluocinolone acetonide) Cream 0.025%—5, 15 and 60 Gm. tubes and 425 Gm. jars. Cream 0.01%—15, 45 and 60 Gm. tubes and 120 Gm. jars. Solution 0.01%—20 and 60 cc. plastic squeeze bottles. Ointment 0.025%—15 and 60 Gm. tubes. Neo-Synalar® (neomycin sulfate 0.5% [0.35% neomycin base], fluocinolone acetonide 0.025%) Cream—5, 15 and 60 Gm. tubes.

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The Woman's Auxiliary

REPORTS TO ISMA

As the AMA is urging an orientation for its 206,000 members, so, likewise the Woman's Auxiliary to the AMA is asking that its 90,000 membership be so instructed.

The Orientation Manual which was given to all state presidents and presidents-elect was designed to give members a better understanding of the medical profession and auxiliary. The program outline in the manual includes the introduction, historical background for auxiliary work, lines of communication, principles of medical ethics and history and the auxiliary program.

Using a condensed version of the above material, adding a brief but exciting history of the ISMA and the state auxiliary (the local material was researched from old books at the ISMA), this constitutes the orientation program as I have presented it in my travels to county auxiliaries. On completion of the program, I usually urge that the auxiliaries bring their members up-to-date on the history of their county medical society and auxiliary.

This past month I had the privilege of visiting with the Howard, Randolph, Johnson and Madison County auxiliaries. This is most enjoyable.

Roberta P. Deever

Dean's Report*

1966-67 Report From the I.U. School of Medicine

DEAN GLENN W. IRWIN, JR.
Indianapolis

DURING the academic year beginning July 1, 1966 and ending June 30, 1967, several major programs were approved and implemented that should allow Indiana University, its school of medicine, and the Indiana State Medical Association to be leaders in medical education, in medical research and in health care.

The 1967 Indiana General Assembly approved, in substance, the Indiana University Plan for Statewide Medical Education. This plan is aimed at increasing the number and improving the distribution of physicians over the state. Key elements of the plan involve support for a hospital-affiliated, internship-residency program and for telecommunication facilities that will link teaching hospitals throughout Indiana.

Indiana also was chosen as a planning region within the national program to combat heart disease, cancer, stroke and related diseases. The I.U. School of Medicine was instrumental in obtaining this Regional Medical Program and now serves as administrative headquarters for the program.

The faculty endorsed the basic principles of a new curriculum, which will offer more flexibility in meeting the educational needs of our students. Some of its features include earlier clinical experience, a wider range of electives (including well planned clinical courses off-campus) and core materials developed through interdepartmental collaboration. A beginning of transition toward curricular changes is taking place during the 1967-68 academic year.

Construction continued on the new University Hospital, the first phase of which should be ready for occupancy by the middle of 1968. This will provide the much needed 245 beds for adult patients. The Indiana General Assembly did appropriate funds to continue the second phase of this hospital. Hopefully, matching funds will be available to start construction in 1968. Another significant development came with the breaking of ground for a $7.7 million addition to the James Whitcomb Riley Hospital for Children. This will provide 131 modern beds and other facilities for pediatric patient care and research.

These were highlights of a year in which the foundations were laid for varied programs with a wide spectrum of potential benefits. The total operating funds for the school of medicine and its departments in 1966-67 were $12,603,732, about one-third of which ($4,169,127) came from state general funds. More than half came from federal sources, $6,165,240 from the Public Health Service and $493,059 from other federal agencies. A total of $1,231,306 came from non-federal sources and $545,000 from special state appropriations.

Statewide Medical Education

During the 1966-67 year, the I.U. Plan for Statewide Medical Education was passed with some modification by the 1967 Indiana General Assembly. During the first part of this session, many legislators considered this plan an obstruction to the creation of a second or third school of medicine. Toward the end of the session, however, the plan was approved overwhelmingly by both houses of the legislature because it was believed that the plan did not conflict with the creation of another school, and because it would help solve important and pressing medical problems in Indiana.

The major goals of the plan were to retain more I.U. Medical School graduates in the state, to attract more young physicians of other states to Indiana, and to upgrade continuing medical education to all physicians of the state. Achieving these goals would result in improved patient care throughout the state.

This statewide medical education plan became known as Senate Bill No. 359. There were two major changes in the final enrolled act. The appropriation was $2,500,000 to Indiana University for the biennium instead of a requested budget of $5,478,650. There was some compensation for this reduced budget by other legislation which provided for the creation of a television network connecting the four state universities and their regional campuses.

A second change was the creation

* Presented at the Indiana State Medical Association annual convention, October 11, 1967, at Indianapolis.

of a Medical Education Board, which would establish policies for the use and expenditure of $1,000,000 allocated for paying the statewide intern-residency supplements and appropriate graduate programs. The Medical Education Board consists of five persons: The Dean of the I. U. School of Medicine, who serves as an ex-officio member of the board and as its chairman, the secretary of the State Board of Health, and three members appointed by the Governor. One of the members appointed by the Governor is a director of medical education, another member is a hospital administrator, and another member is a physician representing the Indiana State Medical Association.

For the biennium, $1,500,000 was allocated to the Indiana University School of Medicine for the educational aspects of the appointment and funding of statewide off-campus faculty members, mostly at the local community level, and for operating and purchasing equipment of a statewide communications system, including library and other computer facilities.

Other New Programs

During the year, Indiana obtained a planning grant of $821,505, under Public Law 89-239. The I.U. School of Medicine is providing leadership for this program. A broadly representative Regional Advisory Group has been formed, and committees are now at work developing several projects in anticipation of seeking operational funds. In many ways, the objectives of the regional program coincide with those of the I.U. Plan for Statewide Medical Education.

In addition, a program called "Medical Education Resources" was created at the I.U. Medical Center. The initial year has been spent in recruitment of specialized personnel and setting up facilities that will fulfill the TV and other communications systems necessary to both statewide medical education and instruction within the school.

New Curriculum

During 1966-67, the Council for Curricular Affairs of the school of medicine enlisted the aid of increasing numbers of the faculty in making more specific plans for a major change in curriculum.

In addition to the various on-campus planning group meetings, two faculty retreats were held. The primary purpose of the first retreat was to provide a more comprehensive review of the objectives and plans for the Basic Science core curriculum and the Medical Biology elective. The sessions of the second retreat focused primarily upon the role of the clinical departments in the curriculum, particularly on the new second-year Introduction to Medicine course and the Core Clinical Clerkships.

The curriculum proposal, modified by discussions of the various committees and amplified at the two retreats, received the support of a significant majority of the faculty.

The first year of the "ultimate" curriculum is devoted to the Basic Science core with an increased allotment of "free" time and some electives. This is followed in September of the second year by several weeks devoted to additional time for pathology and pharmacology, to be followed by the new multi-departmental (largely clinical) Introduction to Medicine course but with involvement by the Departments of Pathology and Pharmacology. The course will focus upon introducing the student to clinical medical problems with accent upon the use of pathophysiology in understanding symptoms, signs, diagnostic approaches, and basic disease mechanisms. A more comprehensive Physical Diagnosis course will be integrated into this course.

The following 12 months will be spent in rotations through the major clinical specialty clerkships (three months in Medicine and its subspecialties; three months in Surgery and its subspecialties; four months in Obstetrics-Gynecology, Pediatrics, and Psychiatry; and one month in Neurosensory specialties.) During the last part of the third year and first part of the fourth year, the student will have Medical Biology (basic science revisited) over a four-month period. During the fourth year there will be eight months' time for elective courses either at the medical center campus or in well planned programs throughout the state.

Until facilities and an adequate number of faculty are available to launch the new Medical Biology course, an "interim" curriculum will be phased beginning the 1967-68 year. The "ultimate" curriculum should be in operation in 1971-72. Elective courses are being prepared and will be offered to many students in 1967-68.

Medical Sciences Program—Bloomington

The Executive Committee of the Medical Sciences Program with the endorsement of the school of medicine, the College of Arts and Sciences, and the Graduate School, has approved a new type of training program. The objective of the program is to produce a limited number of highly trained scientists for academic and research careers in medicine. The main thrust of this program should be on training in "depth" in the sciences as opposed to training in "breadth" as in the past.

Henceforth, by offering a medical science major, which the undergraduate can elect as early as his freshman college year, the faculty will be in a position to make the gifted student aware early in his college career that opportunities for fundamental scientific research are available to him in the Biomedical Sciences, as well as in other scientific fields.

Talented students could enter the medical and graduate schools at the end of the sophomore college year.

The Medical Sciences Program will be programmed for three years, although some students will withdraw to enter other undergraduate majors, others will extend the time to work on a Ph.D. degree, and others will transfer to the school of medicine after spending three years in the program.

Strengthening the Medical Sciences Program should provide an excellent model for other schools of medicine or other universities to create special medical school programs which could make a significant contribution to the health manpower shortage of Indiana and the nation.

Faculty and Student Body

During the 1966-67 academic year, 33 full-time faculty members were appointed and 16 resigned, three to accept departmental chairmanships at other medical schools. In addition, 47 part-time or volunteer members were appointed during the year.

Recruitment of high quality medical school faculty was more competitive than the previous year. Salaries offered to our faculty by other medical schools has often been considerably higher than our rates. In certain areas such as radiology and pathology, the salaries offered by private institutions and community hospitals may be two to three times that of our own faculty. Our faculty members are often tempted and do leave because through the I.U. Plan for Statewide Medical Education, they have the satisfaction of teaching medical students, interns and residents in community hospitals.

Dr. Leslie W. Freeman was named the first Betsey A. Barton Professor of Surgery by the Trustees of Indiana University in January. In the following month the Trustees named Dr. Carl P. Huber the first Coleman Professor of the William H. and Sally E. Coleman Professorship in Obstetrics and Gynecology.

The fall 1966 total of medical students stood at 810, the highest among medical schools in the country. Total house staff at the university hospitals was 283, and there were 111 graduate degree students and 193 persons enrolled in allied health science programs.

The academic achievement of medical students was again excellent. Only five students in the freshman class failed during the year, as was the case in 1965-66. Six students withdrew for various reasons. A total attrition of 11 students in an entering class of 216 is excellent, especially for a state medical school. There were no failures in the other classes and only three withdrawals and four transfers in the sophomore year.

In June, 1967, Indiana University conferred 181 M.D. degrees. Eighty-one remained in Indiana for internship and 100 interned outside the state. This record again emphasizes the real need for the I.U. Plan for Statewide Medical Education.

The number of allied health sciences students increased slightly this year. Several programs in this division were created and implemented in the regional campuses. This division should expand significantly when faculty and space permit, since these health personnel are vital to improving health care of Indiana.

Facilities

The school continues to face a serious space shortage. There has been an increase in the waiting list of private patients to our hospitals. This plus an increase in full-time and volunteer faculty makes almost a desperate hospital situation. The opening of the University Hospital in 1968 should provide some relief.

Fortunately, the matching funds for the new Riley Hospital were obtained, and construction has started; however, occupancy probably will not be until 1970. In the meantime there is an urgent need to renovate areas of the present Riley Hospital in stages as new, needed faculty are added. Unfortunately, funds for renovation were very limited during the year.

Probably the most serious space problem to solve is in the Medical Science Building. Both the basic science and clinical departments need much additional teaching, office, and research space. If the school is to advance to a role of real leadership it must attract outstanding faculty members, and this requires space.

Conclusion

Although the school of medicine has made significant progress from the standpoint of faculty additions, construction of facilities, new programs, curriculum and financial support, there is much to be done if the school is to achieve a status of greatness among the medical schools of the nation. Space for offices, research and teaching is urgently needed as well as more substantial financial support from the state if our school of medicine is to succeed in its goals and many new programs.

Much of the progress thus far accomplished was accelerated by the participation and support of members of the medical profession in Indiana. Valued cooperation came from the Indiana State Medical Association, from county societies and from individual physicians, both in their professional role and as community leaders.

The school of medicine also is fortunate in the loyalty and enthusiasm of its alumni body, many of whom practice in the state of Indiana. During the year, the performance of our alumni group earned them a recognition award as the best constituent organization in Indiana University's entire Alumni Association. ◄

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Traffic Deaths in Lake County: 1966

WEI-PING LOH, M.D.
ALEXANDER S. WILLIAMS, M.D.
Gary*

AMONG the 1,566 traffic deaths recorded in Indiana in 1966, Lake County again scored the highest figure, 136 deaths according to the state record, or 141 deaths according to our record. Here is the analysis of the 141 deaths in our record. We will use the same format of analysis as we previously presented.[1]

Analysis of Accidents

Type: There were 118 motor vehicle accidents in which 141 persons were killed. The 118 accidents included nine car-train accidents which killed 11 persons, five car-motorcycle accidents which killed five persons, and five pure motorcycle accidents which killed five persons. The remaining 99 accidents involved automobiles and a few trucks and buses. Pure train accidents are not included.

Time: There were more accidents and deaths during each of the months of February, April, July, August and November than in any other months of the year. Table 1 gives the time and day of the week when the fatal accidents occurred.

Of the 118 accidents, more occurred during late afternoon, evening and night hours than during the hours between 8:00 A.M. and noon. There were more accidents on Thursday, Friday, Saturday or

* From the Lake County Coroner's Office and the Department of Pathology, Methodist Hospital of Gary, Inc., Gary.

Dr. Loh is chief pathologist for the Lake County Coroner's Office and the Gary Methodist Hospital and associate professor of pathology at the Chicago Medical School.

Dr. Williams is the Lake County Coroner.

TIME AND DAY OF THE WEEK OF FATAL ACCIDENTS

	Days of the Week							
	M	Tu	We	Th	Fr	Sa	Su	Total
Midnight-4:00 A.M.	1	1	—	3	4	1	9	19
4:00 A.M.-8:00 A.M.	1	—	—	2	1	3	5	12
8:00 A.M.-Noon	1	1	3	3	—	1	1	10
Noon-4:00 P.M.	4	2	2	1	2	2	7	20
4:00 P.M.-8:00 P.M.	3	3	—	3	5	5	5	24
8:00 P.M.-Midnight	1	4	4	4	4	2	3	22
Unknown	3	—	4	3	—	1	—	11
TOTALS	14	11	13	19	16	15	30	118

TABLE 1

CAUSE OF FATAL ACCIDENT

Cause	Number of Accidents	Percentage
Speeding	29	25%
Loss of control of car	31	26
Unsafe passing	2	2
Rushing into traffic	6	5
Disobeying signal	21	18
Improper turn	5	4
Defective automobile	2	2
Following too close	4	3
Cause unknown	18	15
TOTAL	118	100%

TABLE 2

TYPE OF FATALITY

Type of Fatality and Number		Killed	
		Number	Percentage
Single fatality	105	105	81%
Double fatality	5	10	6
Triple fatality	6	18	9
Quadruple fatality	2	8	4
Quintuple fatality	—	—	—
TOTALS	118	141	100%

TABLE 3

Sunday than on Tuesday or Wednesday.

Cause: "Speeding" was the leading cause of accident (Table 2). This is followed by "loss of control of car" and "disobeying signal." A high percentage in the category of "loss of control of car" was related to alcohol intoxication. It is significant to point out that "defective automobile", particularly defective brakes, was responsible for only two accidents.

Analysis of Victims

Type of Fatality. Out of the 141 fatalities, 83 were drivers, 58 were passengers and pedestrians. There were 105 single fatalities in 105 accidents (Table 3). Others were multiple fatalities, meaning two or more persons killed in each of the 13 multiple fatality accidents.

Age and Sex. Within the group of 83 drivers, only six were females: 77 were males. Most of the drivers killed were below 50 years of age, and many of them were between 20 and 40 years. A detailed analysis is presented in Table 4.

Alcohol Intoxication. Only 33 of 83 drivers killed had blood alcohol studies. Thirty-two of them showed evidence of drinking and only one of them was negative for blood alcohol. It is important to point out that roughly 55% of those drivers killed and tested showed significant intoxication with a blood alcohol level of 0.15% and above. One of the drivers had a blood alcohol level as high as 0.40%. Table 5 gives the actual blood alcohol levels of the 33 drivers tested.

Major Cause of Death. Necropsies were performed on 60% of the victims. Other victims showed evident cause of death and did not require necropsies. Most of the victims died of head or thoracic injuries (Table 6).

AGE AND SEX OF THE 141 VICTIMS

	Drivers		Passengers and Pedestrians	
Age	Male	Female	Male	Female
20 and under	9	—	12	4
21 - 30 years	23	1	2	4
31 - 40 years	18	1	4	4
41 - 50 years	14	2	7	3
51 - 60 years	7	1	2	3
61 - 70 years	4	1	4	—
71 and above	2	—	5	4
Subtotal	77	6	36	22
TOTAL	83		58	

TABLE 4

BLOOD ALCOHOL OF THE DRIVERS KILLED

Percentage by Weight		
—0.01	—0.15	—0.03
—0.01	—0.12	—0.19
—0.18	—0.18	—0.18
—0.04	—0.02	—0.23
—0.23	—0.37	Trace
—0.24	—0.40	—0.06
—0.20	—0.15	Trace
—0.10	—0.18	—0.04
—0.02	—0.24	—0.01
—0.18	—0.02	—0.25
—0.19	—0.30	Negative

TABLE 5

MAJOR CAUSE OF DEATH

Major Cause	Number of Victims	Percentage
Head injury (skull fracture, brain damage, etc.)	76	54%
Thoracic injury (fracture, internal hemorrhage, etc.)	34	24
Abdominal injury (rupture of internal organs and massive hemorrhages, etc.)	14	10
Multiple injuries, or a combination of above	10	7
Neck injury (fracture, damage of spinal cord, etc.)	7	5
Extensive burns	—	—
TOTALS	141	100%

TABLE 6

Comment

1. In 1966, Lake County again recorded the highest number of traffic deaths among the 92 counties in Indiana. There were 118 motor vehicle accidents in which 141 persons were killed. Such high traffic tolls may be partly related to the year-round heavy traffic in this area of heavy industry.

2. The type and time of the fatal accidents are approximately the same as those in 1965. Wednesday remained the safest day to drive.

3. In regard to cause of fatal accidents, "disobeying signal" was proportionally increased and moved up from fifth place in 1965 to third place in 1966. "Speeding" dropped from 37% in 1965 to 25% in 1966. "Loss of control of car" exceeded "speeding" by a narrow margin and was the leading cause of fatal accidents in 1966. It appears to be true that traffic violators are always apt to violate. In 1966 they speeded less but disobeyed signals more often. "Defective automobile" remained a rare cause, responsible for only two fatal accidents.

4. Type of fatality, age and sex of victims and major cause of death show no significant changes as compared with those in the previous year.

5. Alcohol intoxication remained a serious problem. Two drivers having blood alcohol levels of 0.40% and 0.37% respectively were much more intoxicated than any driver mentioned in our previous report. Safe drivers should always avoid consumption of alcohol.

Acknowledgment

The authors are grateful to Mrs. Elizabeth Thornton and Mrs. Ann Carr for their secretarial help.

REFERENCE

1. Loh, W. P., Williams, A. S.: Traffic Deaths in Lake County, *JISMA*, 59:1464-1469, 1966. ◄

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Pyridoxine HCL . . . . . 5 mg.
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Each Tablet Contains:
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INDICATIONS: Advantage is taken of the anabolic action of ANDROID without its virilizing effect. Estrogen balances the androgen—only steroid effect remains. Geriatrics, post-operative and debilitating disease, osteoporosis. **DOSE:** One tablet t.i.d. Female patients should have a rest period 5 to 7 days after 21 days of medication. **SIDE EFFECTS:** In the female, excessive dosage may produce virilizing effects of most androgens: hoarseness, hirsutism, enlarged clitoris. Symptoms can be avoided by keeping the dosage below 300 mg. of testosterone per month. **CONTRA INDICATIONS:** See Android. Ethinyl estradiol is not to be used in latent malignancy of reproductive organs or mammary glands.

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Each tablet contains: Codeine Phosphate gr. ½ (Warning—May be habit forming), Phenacetin gr. 2½, Aspirin gr. 3½, Caffeine gr. ½.

Despite introduction of synthetic substitutes, efficacy of 'Empirin' Compound with Codeine remains unchallenged.

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Indications: Hypertension and many types of edema involving retention of salt and water.
Contraindications: Hypersensitivity and most cases of severe renal or hepatic disease.
Warning: With the administration of enteric-coated potassium supplements, which should be used only when adequate dietary supplementation is not practical, the possibility of small bowel lesions (obstruction, hemorrhage, and perforation) should be kept in mind. Surgery for these lesions has frequently been required and deaths have occurred. Discontinue enteric-coated potassium supplements immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occur. Use with caution in pregnant patients, since the drug may cross the placental barrier and adverse reactions which may occur in the adult (thrombocytopenia, hyperbilirubinemia, altered carbohydrate metabolism, etc.) are potential problems in the newborn.
Precautions: Antihypertensive therapy with Hygroton should always be initiated cautiously in postsympathectomy patients and in patients receiving ganglionic blocking agents or other potent antihypertensive drugs, or curare. Reduce dosage of concomitant antihypertensive agents by at least one-half. Barbiturates, narcotics or alcohol may potentiate hypotension. Because of the possibility of progression of renal damage, periodic determination of the BUN is indicated. Discontinue if the BUN rises or liver dysfunction is aggravated. Hepatic coma may be precipitated. Electrolyte imbalance, sodium and/or potassium depletion may occur. If potassium depletion should occur during therapy, Hygroton should be discontinued and potassium supplements given, provided the

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Hygroton therapy may mean troublesome side effects for some patients. A summary of the prescribing information is shown below.

patient does not have marked oliguria.
Take special care in cirrhosis or severe ischemic heart disease and in patients receiving corticosteroids, ACTH, or digitalis. Salt restriction is not recommended.
Adverse Reactions: Nausea, gastric irritation, vomiting, anorexia, constipation and cramping, dizziness, weakness, restlessness, hyperglycemia, hyperuricemia, headache, muscle cramps, orthostatic hypotension, aplastic anemia, leukopenia, thrombocytopenia, agranulocytosis, impotence, dysuria, transient myopia, skin rashes, urticaria, purpura, necrotizing angiitis, acute gout, and pancreatitis when epigastric pain or unexplained G.I. symptoms develop after prolonged administration. Other reactions reported with this class of compounds include: jaundice, xanthopsia, paresthesia, and photosensitization.
Average Dosage: 50 or 100 mg. with breakfast daily or 100 mg. every other day.
Availability: White, single-scored tablets of 100 mg. and aqua tablets of 50 mg., in bottles of 100 and 1000.
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For full details, please see the complete prescribing information.

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Hygroton 50 mg. offers convenience for your patients who are halving the 100 mg. tablets or taking one every other day.

Geigy

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Report on Actions of the House of Delegates American Medical Association

21st Clinical Convention
November 26-29, 1967
Houston, Texas

HOUSTON, TEXAS—The Indiana delegation to the 21st Clinical Convention of the American Medical Association introduced a total of eight resolutions, six of which were approved. One was regarding answering criticism of American medicine in the public press. This resolution was adopted and referred to the Board of Trustees for implementation.

Another Indiana resolution calling on the AMA to immediately establish a conference of all medical society officers for the purpose of acquainting them with the provisions of the Comprehensive Health Plan and assist them in establishing guidelines for medical participation in implementing this program was also adopted and referred to the Board of Trustees for implementation.

Foreign medical graduates was the topic for a third Indiana resolution. This resolution was amended to provide that the AMA make a study of this matter and to report findings to the next meeting of the House of Delegates. Our resolution urging the dispersal of narcotic storage into areas other than the so-called "target areas" was not approved because it was stated that medical organizations and hospitals were not interested in assuming the responsibility for supervision of those materials in other storage areas.

Indiana's resolution complimenting the Board of Trustees for enrolling employees in Blue Cross-Blue Shield was approved. Indiana also introduced a resolution asking that a more central location be selected in lieu of Atlantic City for the 1971 AMA annual convention. This resolution was not approved.

Another Indiana resolution calling for a change in the Constitution and Bylaws to permit the vice president to have a vote on the Board of Trustees was approved. Indiana's final resolution concerning the actions of the Federal Labor Department to classify doctors as being engaged in interstate commerce was approved and referred to the Board of Trustees with the request that the legal department of the AMA take immediate steps to resolve this matter.

All delegates and alternates were in attendance along with the members of the ISMA Executive Committee. They held daily meetings to discuss the resolutions and reports. One of the social highlights of the meeting was the use of the Indiana hospitality room by alumni of Indiana University for a gathering place to discuss Indiana meeting Southern California in the Rose Bowl.

Other Actions

The need for "positive leadership" and "visible action" by the medical profession and all other members of the health team was emphasized to delegates at the convention by Milford O. Rouse, M.D., president of the AMA.

"The future of the individual physician, of patient care and of the methods by which it will be made available to all people do not depend on our efforts alone," the president said in his keynote address during Sunday's opening session. "They depend also on the future attitude of the nation toward free enterprise; on the degree of future national respect for individual initiative; and on the extent of future overall acceptance of the concept that personal satisfaction and personal benefit are to be gained principally through personal endeavor."

Dr. Rouse pointed out that many things can be done only by government, or best by government, but added that many other things can be done only by private organizations and individual citizens working together.

The reason, he explained, is that actions of government often are necessarily negative. For example, Dr. Rouse said, "Government can pass laws against theft, but no law can make a people want to be honest . . . . Government can pass laws against drunkenness, but no law can make a people want sobriety."

However, he added, "Leaders in government understandably see it as their duty to do for the people of this country whatever they believe, or whatever they are told by citizen groups, is not already being done. . . . When private citizens abdicate their responsibilities and ask the government to do a job, government responds in the only way it can: it passes more laws. . . . And every time another law is passed, it means another small or large restriction on somebody's freedom."

As citizens, Dr. Rouse said, "we have this choice when facing a situation that needs correcting: we can do it ourselves; or we can ask the

government to pass a law" and set up an administrative mechanism to enforce it.

In regard to specific, current problems — the cost of health care and the growing need for more effective cooperation among health care professionals and sub-professionals — Dr. Rouse stated that "I believe sincerely that we have reached a point . . . when we can no longer just cling to all of the traditions of our distinguished past. I believe the time has come for orderly, planned, meaningful change — not in the fundamentals of ethics or devotion to excellence; but in the more material features of efficiency, cost and methods of delivery" of health care.

"If we should fail to recognize the present as an opportunity for positive action. . . I believe we would fail not only ourselves, but the people of this country, more and more of whom need and want more and more of the services we are uniquely able to render.

"Let us not make it necessary," he concluded, "for anybody else to direct the furnishing of those services."

There was no lack of positive action in the Houston meeting, at which 238 out of 242 delegates (98.3%) attended the final two sessions, dealing with 96 items of business, including 17 reports from the Board of Trustees; 20 from the four standing committees of the House; one special report each from the AMA-ERF and the Commission to Coordinate the Relationships of Medicine With Allied Health Professions and Services; and 57 resolutions from state medical societies or individual physicians.

Of those, the House adopted 43 without amendment; amended and adopted 22; referred 21; absorbed four into other adopted items; and rejected six.

Distinguished Service Award

Owen H. Wangensteen, M.D., director of the Department of Surgery at University Hospitals, Minneapolis, was named the winner of the 1968 Distinguished Service Award. The award will be presented to Dr. Wangensteen at the annual convention in San Francisco in June, 1968.

Under a change in the Bylaws, this is the first time the award winner has been selected at the clinical convention. Previously he was selected and the award was made at the annual convention.

AMA-ERF Institute for Biomedical Research

In a special report on the AMA Education and Research Foundation, Charles L. Hudson, M.D., immediate past president of the AMA and president of AMA-ERF, reported to the House that the board of directors of AMA-ERF had "voted to endorse in principle the relocation of the Institute for Biomedical Research on, or contiguous to, the University of Chicago campus, and authorized the executive vice president, with appropriate other members of staff and the president and secretary-treasurer of the foundation to negotiate a contract with the University of Chicago for consideration by the board of directors of AMA-ERF."

The House approved the action of the board of directors of AMA-ERF and endorsed "in principle" the relocation of the institute "on or contiguous to the University of Chicago."

At the same time, the House requested the board of AMA-ERF "to present at each clinical convention a report on the projected budget of the Institute for Biomedical Research for the ensuing year and the amount of the projected contribution from the American Medical Association to the institute during that period."

Medical Education

Several actions were taken relating to medical education.

One was adoption of the Board of Trustees' summary of the Report of the Commission on Research. Fifteen recommendations were contained in the commission report, two of which were seen as particularly significant.

Recommendation 12 encouraged research in the delivery of health care, "provided it is conducted under proper auspices and in accordance with sound research design and methodology." The House adopted it, with the understanding that such support "should not be interpreted to imply any criticism of the present studies of the delivery of health care." Present efforts are productive, but the medical profession "should not hesitate to make known its interest in continued studies to improve the methods and quality of health care delivery."

Recommendation 13 was addressed to correcting the imbalance between biomedical research and education caused by the "heavy but desirable federal support of research." It stated that "there should be allotted a greatly increased amount for operational expenses of medical schools, to be matched by those schools through private or local governmental sources."

Again the House concurred, stressing the fact that its approval of the recommendation changes the policy of the AMA with respect to federal support for medical education. The change results in "an honest recognition that federal financial support is now accepted by the American medical schools." However, in adopting the recommendation, the House "emphatically urges that a matching formula be used" to "encourage medical schools to retain their independence."

The House also adopted a resolution that the AMA, through its Council on Medical Education, "utilize all appropriate influences to restore teaching to its proper place of prominence in medical education" instead of giving the lion's share of attention, honors and contributions to research scientists; and adopted 12 guidelines for medical staffs in hospitals with intern and resident training programs.

Health Manpower

A report was adopted on the "Report of the National Advisory Commission on Health Manpower," which was submitted to President Johnson on November 20.

The report was necessarily brief, since there had not been time to study and evaluate the commission report in any depth, but it pointed out that the commission's approach to health care problems indicated recognition of the need for orderly procedures rather than harmful "crash" programs. The emphasis in most of the commission report is to center responsibility on the professional groups best able to evaluate and plan in health areas, rather than on government and non-professionals.

The House adopted the preliminary report; voted to enlarge the AMA Committee on Health Manpower by four members to permit more careful and complete study in this area; and noted that copies of the complete commission report will be sent to all delegates and alternates, requesting them to submit their comments to their constituent associations as soon as possible.

In addition, the House approved replacing the present AMA Commission to Coordinate the Relationships of Medicine With Allied Health Professions and Services with a new council of the Board of Trustees to be known as the Council on Allied Health Professions; and directed the association to seek the establishment of a medically oriented federal Commission on Health Resources and Medical Manpower to assure properly balanced distribution of health personnel among government agencies, the armed forces and the civilian population.

Also with respect to health personnel, both professional and allied, the House asked that a report be made at the next meeting evaluating the foreign resident, intern and physician program; requested a study of the present professional liability implications in the use of allied medical personnel; and urged physicians to become acquainted with the programs of the American Association of Medical Assistants and to encourage their assistants to participate in its educational and certification programs.

Health Care

The House adopted a number of reports and resolutions relating to health care from the standpoint of the community and the individual patient.

One emphasizes that standards of medical care are set at the local level and calls attention to disturbing trends pointing to the possible establishment of medical care standards on a national basis.

Another commits the AMA to leadership in informing the public, the profession and other elements of the health care field as to practical means of moderating health care costs, the value of voluntary health insurance, expanding the medical manpower supply and improving the health care of the American people.

With respect to comprehensive planning of health facilities and services, the House urged state and local medical societies to emphasize a variety of activities to be undertaken in the area of overall planning for governmental and private programs of health care, including "Continued effort by the medical profession to improve federal legislation in this area and to emphasize the importance of local control."

The House reaffirmed that the procurement, processing, distribution or use of human blood and other human tissue is a medical service and is not the selling of a commodity. The Board of Trustees and the state associations were urged to support legislative action at federal and state levels to implement this concept.

The use of monitoring, defibrillation and resuscitative equipment by registered nurses in cases of cardiac emergencies was supported, with provisions regarding the nurse's training and procedures established by the hospital medical staff.

Alcoholism was identified as a complex disease and the House recognized that the medical components of this entity are medicine's responsibility.

Medicare and Medicaid

In regard to medicare, the House reaffirmed its support for direct billing under the federal program and adopted a resolution regarding the collection and public dissemination of figures on the administrative costs of medicare.

The House resolved that the AMA continue its efforts to provide for the implementation of Title 19 in a manner which recognizes "the physician's right to bill directly all patients, including Title 19 patients, and allows the physician or his patient to be reimbursed his usual, customary and reasonable fee for his professional services;" and that the association actively seek changes in the law that will secure "equal and simultaneous application to all jurisdictions."

Other Legislative Matters

A resolution urging continuing opposition to S-2299, the Long drug bill, and a report detailing the current status of HR-12080, the Social Security Amendments of 1967, were adopted.

The House also adopted recommendations that the AMA arrange a meeting of state medical association representatives to plan regional conferences of physicians to discuss matters of special interest to state legislators; and that state associations invite key lawmakers to attend AMA conferences.

Also approved was a resolution that state associations establish active legislative task forces at the congressional district level to maintain an effective working relationship with congressmen.

Support for AMPAC was reaffirmed in a resolution that requested the Board of Trustees to seek additional ways of helping AMPAC en-

large its activities and its assistance to state medical political action committees.

Hospitals

Because both medicare and medicaid provide payment for medical care rendered to patients by residents, the House resolved that the association should study the problem and develop guidelines that are acceptable to supervising physicians, teaching institutions and government agencies involved in the payment process.

In addition, with respect to hospitals, the House adopted resolutions:

—Proposing the acceptance of physicians on hospital Boards of Trustees as the most effective form of liaison between the medical staff and hospital governing authorities.

—Protecting hospital privileges through "due process."

—Calling for more effective liaison and better coordination between medical staffs and local medical societies.

—Pointing out the need for simplifying attendance requirements for maintaining membership on hospital medical staffs.

—Pressing for prompt revision of the JCAH ruling on the use of externs in non-university affiliated hospitals, with the incorporation of adequate safeguards to insure the quality of programs of extern education.

In addition, model articles of incorporation for hospital medical staffs were made available for distribution in response to requests.

AMA Organization and Procedures

A number of changes were made in the Bylaws:

—Chapter XIV, Section 3(D) was updated, providing that four trustees will be elected annually, each for a three-year term and each limited to three terms.

—The terms in office of the president, president-elect and vice president all will begin and end at the close of the final session of the House of Delegates at the annual convention.

—Resolutions must be introduced to the House by a voting delegate.

—Nominations for affiliate membership in the AMA in classes (3), (4), (5) and (6) must be approved by the appropriate county and state medical society.

—A general officer's position is to be considered vacant if he misses six consecutive regular meetings of the board.

—The House approved giving the vice president voting rights on the board.

Convention Sites

Sites and dates for future conventions will be:

Annual

1968 San Francisco, June 16-20
1969 New York, July 13-17
1970 Chicago, June 21-25
1971 Atlantic City, June 20-24
1972 San Francisco, June 18-22
1973 New York, July 15-19
1974 Chicago, June 16-20

Clinical

1968 Miami Beach, December 1-4
1969 Denver, Nov. 30-Dec. 3
1970 Boston, Nov. 29-Dec. 2
1971 New Orleans, Nov. 28-Dec. 1
1972 Atlanta, November 26-29
1973 Anaheim, Cal., November 25-28
1974 Portland, Ore., December 1-4

AMA Objectives

The House adopted a statement of 11 purposes and responsibilities for the AMA, designed to define more clearly the overall purpose as written in the Constitution: "To promote the science and art of medicine and the betterment of public health."

The entire statement follows:

The Purposes and Responsibilities of the American Medical Association

It is the responsibility of the American Medical Association, as the representative of the American medical profession, to continue to foster the advancement of medical science and the health of the American people.

Its continuing purposes are to meet this responsibility through the following means:

1. By encouraging the further development of medical knowledge, skills, technics and drugs; and by maintaining the highest standards of practice and health care.

2. By creating incentives to attract increasing numbers of capable people into medicine and the other health-care professions.

3. By advancing and expanding the education of physicians and other groups in the health-care field.

4. By motivating skilled physicians who have the art of teaching to apply themselves to developing new generations of excellent practitioners.

5. By fostering programs that will encourage medical and health personnel to serve voluntarily in the areas of need for medical care.

6. By developing technics and practices that will moderate the costs of good medical and health care.

7. By seeking out and fostering means of making all health-care facilities — physicians' offices, hospitals, laboratories, clinics and others — as efficient and economical as good medical practice and attention to human values will permit.

8. By combining the utilization of the latest knowledge for prevention and treatment with the vital healing

force of the physician's personal knowledge of and devotion to his patient.

9. By maintaining the impetus of dedicated men and women in providing excellent health care by preserving the incentives and effectiveness of unshackled medical practice.

10. By maintaining the highest level of ethics and professional standards among all members of the medical profession.

11. By continuing to provide leadership and guidance to the medical profession of the world in meeting the health needs of changing populations.

Additional Actions

A memorial to Percy E. Hopkins, M.D., was read to the House and a copy was sent to Dr. Hopkins' widow. Dr. Hopkins served as a trustee for seven years, the last four as its chairman. He also served for eight years as a delegate from Illinois.

The House reiterated its serious concern with respect to the Blue Cross Association's request for government funds for its research project on group practice.

Criteria for the evaluation of medical programs of national voluntary health agencies were adopted.

Three resolutions, referred to the board, pointed out that many news stories criticizing the rising cost of health care place all or most of the responsibility squarely on physicians. As one of the resolutions put it, "Statistical reports relating to health care costs are misleading when they are referred to . . . as medical care costs; and . . . the improper labeling . . . may actually delay proper analysis of the several components." ◄

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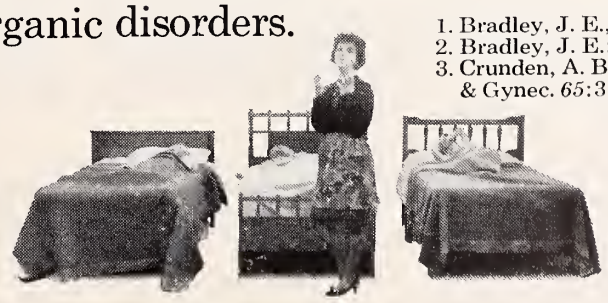
1. Bradley, J. E., *et al.*: J. Pediat. *38*:41 (Jan.) 1951.
2. Bradley, J. E.: Mod. Med. *20*:71 (Oct. 15) 1952.
3. Crunden, A. B., Jr., and Davis, W. A.: Am. J. Obst. & Gynec. *65*:311 (Feb.) 1953.



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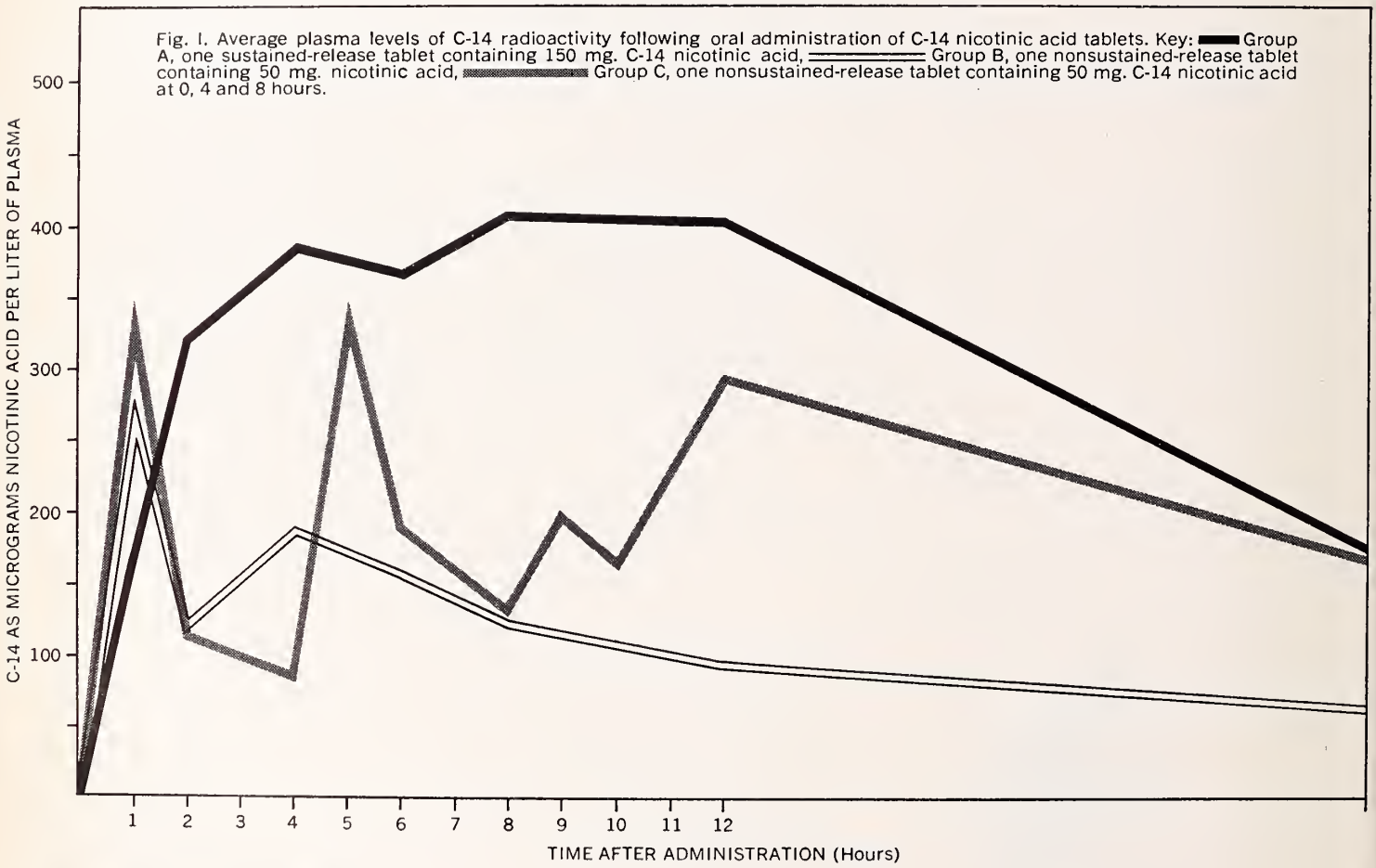

Fig. I. Average plasma levels of C-14 radioactivity following oral administration of C-14 nicotinic acid tablets. Key: Group A, one sustained-release tablet containing 150 mg. C-14 nicotinic acid, Group B, one nonsustained-release tablet containing 50 mg. nicotinic acid, Group C, one nonsustained-release tablet containing 50 mg. C-14 nicotinic acid at 0, 4 and 8 hours.

(fewer absent doses by absent-minded patients)

Human volunteer subjects were administered Geroniazol TT tablets with the nicotinic acid component made radioactive with C-14. Plasma and urine samples were analyzed. (See Figures I and II) The radioactive tracer study substantiated the previous clinical evidence that the release of nicotinic acid from the Geroniazol TT tablet produced a gradual rise in plasma levels to a plateau for a total of 12 hours and more.

Such proven sustained activity makes the management of geriatric patients much easier by minimizing the possibility of neglected doses through absent-mindedness or senile confusion. Therapy *can* be continuous on a daily dose of only one Geroniazol TT tablet every 12 hours.

The gradual release of nicotinic acid in Geroniazol TT will provide the well-known peripheral vasodilatation needed in patients with deficient circulation and with a minimum amount (if any) of "flushing." Also, cerebrovascular circulation is complemented by pentylenetetrazol, long-established as a cerebral and respiratory stimulant.

Geroniazol TT improves the typical, unfortunate, signs of senile confusion. Patients become more alert,

ged and debilitated

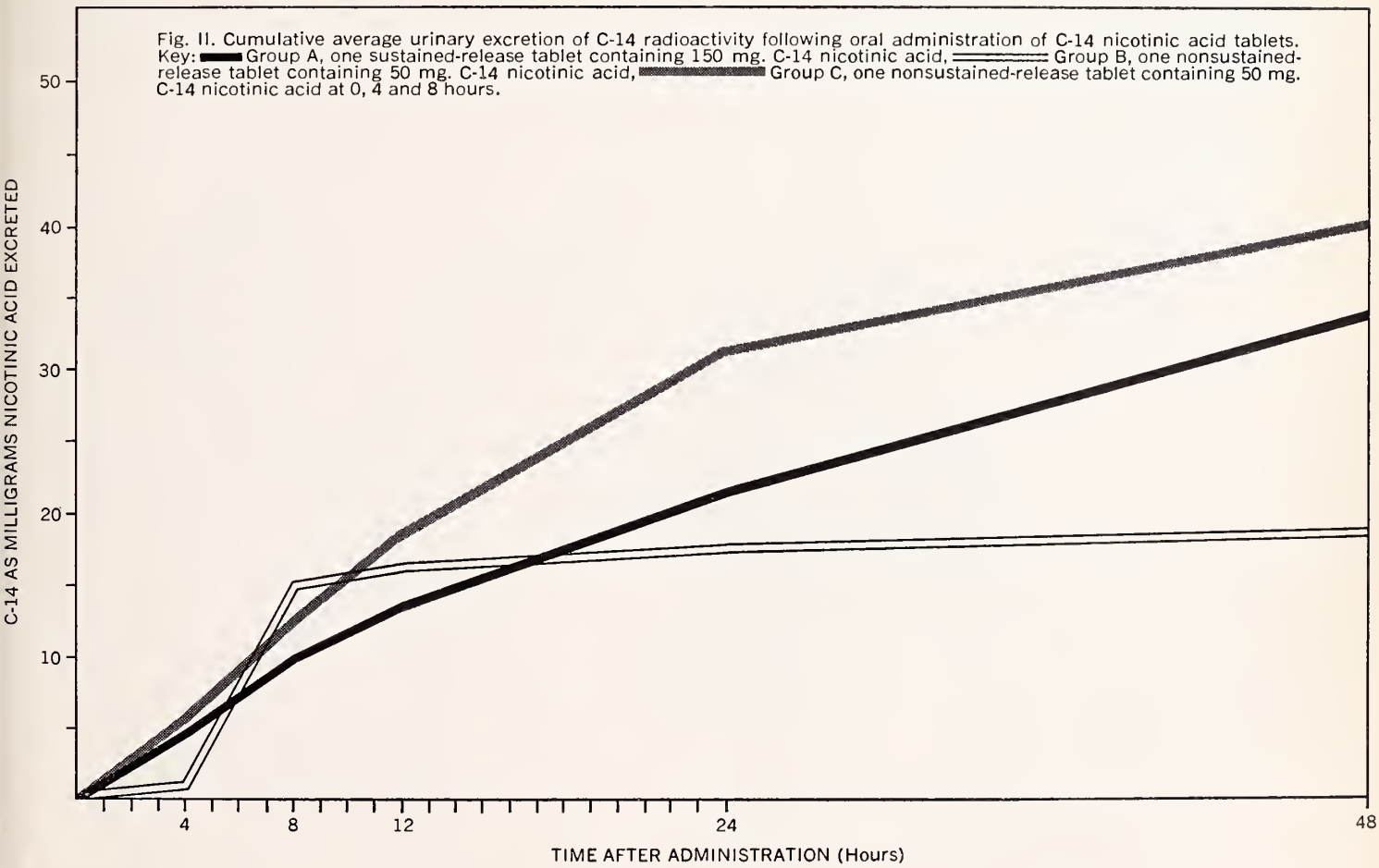

Fig. II. Cumulative average urinary excretion of C-14 radioactivity following oral administration of C-14 nicotinic acid tablets. Key: Group A, one sustained-release tablet containing 150 mg. C-14 nicotinic acid, Group B, one nonsustained-release tablet containing 50 mg. C-14 nicotinic acid, Group C, one nonsustained-release tablet containing 50 mg. C-14 nicotinic acid at 0, 4 and 8 hours.

less confused and moody. Personal care, memory, emotional stability, social attention improve. Fatigue, apathy and irritability are reduced.

A prescription for 100 tablets of Geroniazol TT will permit your patients to enjoy the benefits of time-prolonged nicotinic acid/pentylenetetrazol therapy, at an economical price. Dosage is only one tablet every 12 hours.

Contraindications: There are no known contraindications.

Precautions: Exercise caution when treating patients with a low convulsive threshold.

Side Effects: Side effects are rarely encountered, however due to the vasodilatation effect of nicotinic acid, transitory mild nausea, flushing, tingling and pruritus are possible.

Dosage: One tablet every 12 hours.

Supplied: Prescribe bottles of 100 tablets, to take advantage of recent price reduction.

References: 1. Report by Nuclear Science & Engineering Corp., Pittsburgh, Pa., in files of Philips Roxane Laboratories. 2. Connolly, R.: W. Virginia Med. J. *56*:263 (Aug.) 1960. 3. Curran, T. R., and Phelps, D. K.: Am. Pract. & Digest Treat. *11*:617 (July) 1960.

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News from Indiana University School of Medicine

The School of Medicine Library has been granted a Medical Library Resource Grant from the National Library of Medicine. The major purpose of the grant was to allow for the completion of a computer serials project which will provide a print-out of serial holdings, immediate and up-to-date, on demand. The publication, *InU-M Serial Holdings*, is a major product of the project.

In an effort to improve services to physicians and hospitals throughout the state, copies of the publication were sent to Indiana hospitals and the twenty-two TWX (Teletype) terminals through which physicians' requests for materials and services are channeled to the library. It was also distributed to Indiana University campuses, all colleges in the state, Indiana University Medical Center departmental chairmen, all medical school libraries in the United States and Canada, and other libraries with which the library participates in interlibrary loans. *A List of Serials Currently Received with Holdings* was distributed to all full-time faculty.

The input is stored on tape for future query via remote terminals. Annual up-dating and the addition of new titles can be handled as routine procedures. Supplemental lists of new titles will be produced every two months.

Because the project is computer-produced, it can be manipulated in various ways. Some of the lists which are available will be currently received titles, titles indexed in *Index Medicus*, and indexing, abstracting, and bibliographic titles. Holdings may or may not be included in these. as desired. Over 55 subject headings have been assigned. A list of titles on any one of these subjects, a combination of any two, or for any subject by foreign language, can be produced.

It is intended that any of these lists can be distributed upon demand to appropriate seminars held in conjunction with the medical center's new program of continuing education, meetings, or to individual physicians. ◄

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TELETYPE SERVICE

Physicians in over 140 Indiana communities outside of Marion County who do not have direct access to the library may request specific references or bibliographic searches from the Indiana University School of Medicine Library by merely calling their local public libraries and asking that the request be placed by TWX. There is no charge for the teletype call.

Xeroxed copies of the first 20 pages of any one article are gratis. If an article is over 20 pages, a ten cent charge is made for each additional exposure.

For further information write to: Indiana University, School of Medicine Library, Reference Department, 1100 W. Michigan St., Indianapolis, Indiana 46207.

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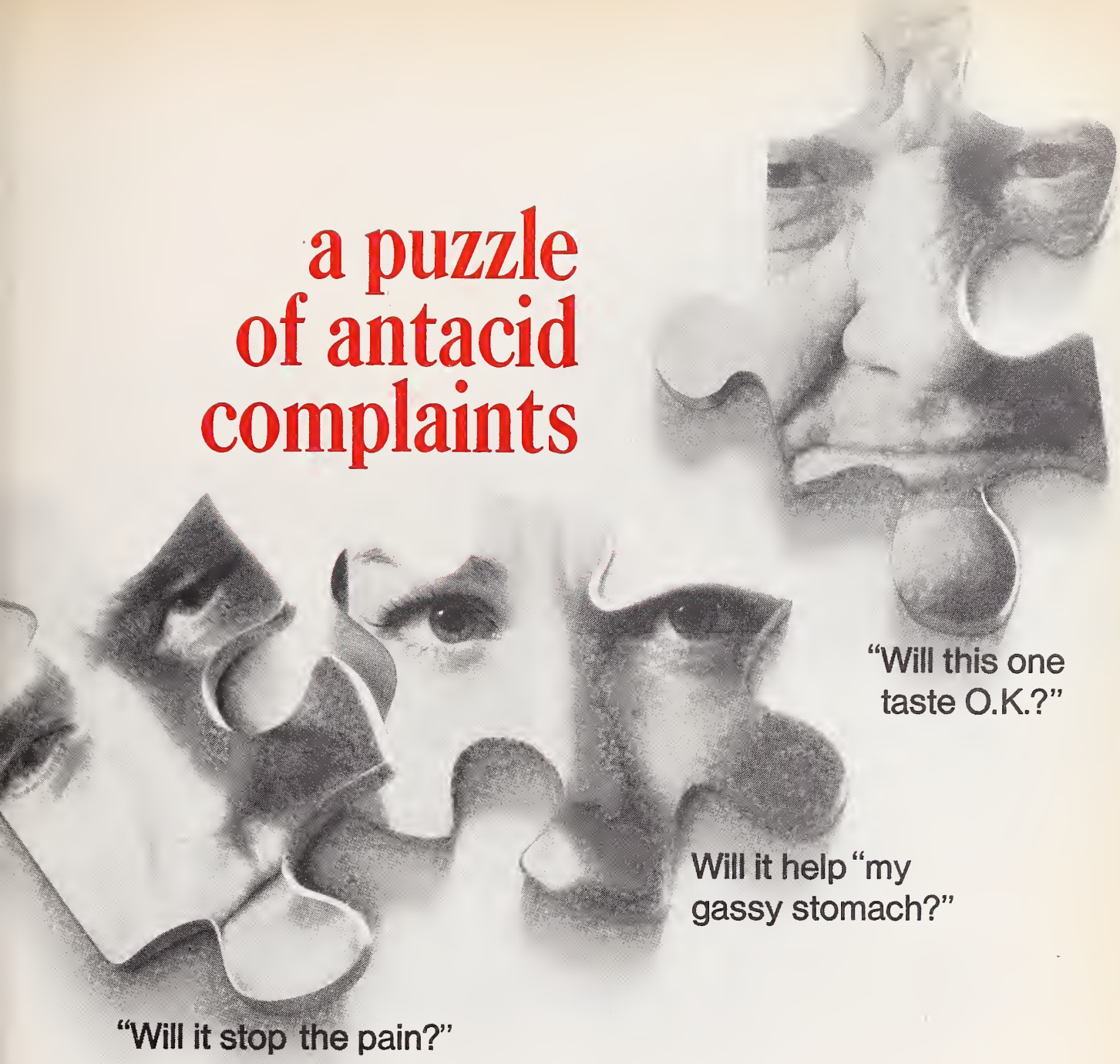

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in 87.5% of 104 patients after a total of 20,459 documented days of therapy.[2]

Composition: Each Mylanta chewable tablet or teaspoonful (5 ml.) contains: magnesium hydroxide, 200 mg.; aluminum hydroxide, dried gel, 200 mg.; simethicone, 20 mg. Dosage: One or two tablets (well chewed or allowed to dissolve in the mouth) or one or two teaspoonfuls to be taken between meals and at bedtime.

References: 1. Hoon, J. R.: Arch. Surg. *93*:467 (Sept.) 1966.
2. Danhof, I. E., Personal communication.

Stuart Division/Pasadena, Calif.
ATLAS CHEMICAL INDUSTRIES, INC.

new evidence for TAO® (triacetyl-oleandomycin)

a macrolide antibiotic for the frequently seen respiratory infection in the office and for a problem pathogen* in the hospital.

*Staphylococcus aureus

study I[1]

Results of a 1967 in vitro—in vivo correlation study involving 116 patients with Gram-positive coccal infections in five institutions. All patients were given TAO prior to determining the susceptibility of the offending organism.

97.0%

of the organisms were susceptible to oleandomycin*

98.0%

of the patients responded favorably to TAO® (triacetyloleandomycin)

*In some cases more than one pathogenic organism was isolated from the patient.

study II[2]

Effect of oral therapy with TAO, erythromycin, and cloxacillin on the survival time of Rhesus monkeys after intravenous inoculations of lethal doses of staphylococci, phage type 80/81. (8 monkeys in each group)

conclusion:

*Under the conditions of this study and the doses employed, it was found that

TAO® (triacetyl-oleandomycin)

was far superior to erythromycin, as was cloxacillin, a bactericidal agent, and of particular interest, "...bacteriostatic triacetyloleandomycin was as effective or perhaps superior to cloxacillin in preventing lethal (staphylococcal, phage type 80/81) infection."

*It should be pointed out that results obtained in an experimental study of this nature may not necessarily be directly extrapolated to the clinical situation as it pertains to man.

TAO Rx Information

INDICATIONS: Include streptococci, staphylococci, pneumococci and gonococci. Recommended for acute, severe infections where adequate sensitivity testing has demonstrated susceptibility to this antibiotic and resistance to less toxic agents.

CONTRAINDICATIONS AND PRECAUTIONS: Not recommended for prophylaxis or in the treatment of infectious processes which may require more than ten days continuous therapy. In view of the possible hepatoxicity of this drug when therapy beyond ten days proves necessary, other less toxic agents should be used. If clinical judgement dictates continuation of therapy for longer periods, serial monitoring of liver profile is recommended, and the drug should be discontinued at the first evidence of any form of liver abnormality. When treating gonorrhea in which lesions of primary or secondary syphilis are suspected, proper diagnostic procedures, including darkfield examinations, should be followed. In other cases in which concomitant syphilis is suspected, monthly serological tests should be made for at least four months. Contraindicated in pre-existing liver disease or dysfunction, and in individuals hypersensitive to the drug. Although reactions of an allergic nature are infrequent and seldom severe, those of the anaphylactoid type have occurred on rare occasions. When used in streptococcal infections, therapy should be continued for ten days to prevent the development of rheumatic fever or glomerulonephritis. The use of antibiotics may occasionally permit overgrowth of nonsusceptible organisms. A resistant infection or superinfection requires re-evaluation of the patient's therapy. In the event such occurs with this drug the medication should be discontinued, and specific antibacterial and supportive therapy instituted.

References: 1. Isenberg, H. D.: Clinical Evaluation of Laboratory Guidance to Antibiotic Therapy; Health Laboratory Science (July) 1967. 2. Saslaw, S., Carlisle, H. N.: Studies on Therapy of Staphylococcal Infections in Monkeys. 1. Comparison of Cloxacillin, Triacetyloleandomycin and Erythromycin. Proc. Soc. Exp. Biol. & Med.: Vol. 125, No. 4 (Aug.-Sept.) 1967.

ROERIG Rx

J. B. ROERIG DIVISION
CHAS. PFIZER & CO., INC.
235 EAST 42nd STREET
NEW YORK, N. Y. 10017

For your impatient cold patients

Two sprays from NTZ Nasal Spray—and nasal congestion, rhinorrhea, sneezing are reduced for *immediate* comfort for patients with colds.

NTZ is more than a simple vasoconstrictor. It contains:

Neo-Synephrine® (brand of phenylephrine) HCl 0.5 per cent, the major component, virtually synonymous with fast, efficient but gentle nasal vasoconstriction on contact.

Thenfadil® (brand of thenyldiamine) HCl 0.1 per cent, topical antihistamine for reduction of rhinorrhea, sneezing or itching. It combats the allergic reactions that may occur in colds or sinusitis.

Zephiran® (brand of benzalkonium, as chloride, refined) 1:5000, antiseptic preservative and wetting agent to promote penetration and spread of the formula.

NTZ is well tolerated. Used in a cold it may help prevent sinusitis by opening sinus ostia and permitting drainage. It may also be used in sinusitis to help establish drainage.

The spray is best used twice, the second a few minutes after the first, repeated every three or four hours as needed. NTZ is for temporary relief of nasal symptoms, and overdosage should be avoided.

Supplied: NTZ Nasal Spray, plastic squeeze bottles of 20 ml.; NTZ Nasal Solution, bottles of 30 ml. (1 fl. oz.) with dropper.

Winthrop

Winthrop Laboratories
New York, N.Y. 10016

The Cancer You View

DISCUSSION

The history of a pale, waxy nodule in the skin of this duration with occasional episodes of bleeding, central ulceration and crusting should immediately arouse clinical suspicion of a basal cell epithelioma (carcinoma). Although the typical basal cell epithelioma has a highly characteristic appearance, confirmation of the diagnosis by biopsy is essential to intelligent management. The surface of the early lesion is smooth; but as the tumor enlarges, a central depression appears. Tiny, bright red, telangiectatic vessels are characteristic. The border of the lesion may assume a slightly nodular appearance. The lesion bleeds on slight trauma or it may erode spontaneously.

The course of basal cell epitheliomas varies greatly. They may show little or no tendency to growth; may remain quite superficial and raised only slightly; may show central healing with peripheral spread; or they may show no tendency toward healing and may continue a destructive, invasive course until underlying bone and cartilage as well as large surface areas are involved. Concomitant with the development of the basal cell cancer, the melanocytes may be stimulated to produce an increased amount of pigment distributed evenly or unevenly throughout the tumor and may, therefore, lead to confusion with melanoma.

Some basal cell epitheliomas differ so markedly in their clinical appearance from the usual ulcerated lesion that they have received separate designations:

1) Indurated or nodular basal cell epithelioma.
2) Superficial basal cell epithelioma (more common on the trunk).
3) Morphea-like or fibrosing basal cell epithelioma.
4) Fibro-epithelioma.
5) Mixed basosquamous carcinoma.

About 85% of all basal cell epitheliomas appear in persons classified as blond or rufous types. The incidence is highest in persons between 50 and 70 years of age; however, they have been seen by the author in children and adolescents.

Some 94% of basal cell epitheliomas appear on the head and neck; approximately one-half of the remainder appear on the trunk and hands. One-half of the tumors occurring on the face and neck are found at the sites of most direct and severe exposure to actinic or ionizing solar rays.

It is the strong opinion of most observers that basal cell epithelioma does not metastasize unless there are associated squamous cell features. The aim of treatment is obviously the complete eradication of the tumor, preferably at one sitting and without undue damage to surrounding normal tissues. Location and size of the lesion may be factors in consideration of the method of treatment to be employed, as are expense, time, and general condition of the patient (as in the aged). In surveying the literature on the treatment of basal cell epitheliomas it is very apparent that such lesions are most frequently treated in accordance with the particular technic with which the physician is most familiar.

Methods most commonly employed:

1) Surgical excision and primary closure or grafting.
2) Electrocoagulation and desiccation.
3) X-ray therapy.
4) Chemotherapy.

Since individual and exposure factors are involved in the pathogenesis of basal cell cancer, multiple lesions are prone to develop. Patients, therefore, should be informed of typical early lesion features so that new lesions may be treated early. When young individuals are involved, prophylactic protection from solar irradiation should be advised. ◄

Medicine At Law

DECISIONS AND OPINIONS

Highlights of recent court actions pertaining to health and medicine from *The Citation* prepared by the Law Division of AMA.

Surgeon Not Liable for Hoarseness Following Thyroidectomy— The jury's verdict in favor of a patient against a surgeon for voice changes following a thyroidectomy was contrary to the weight of the evidence, a New York trial court ruled. The court set aside the verdict and dismissed the suit.

The surgeon used the standard method in performing the operation. The patient's voice was normal before the operation. After the operation his voice ranged from hoarseness to a whisper.

Expert medical witnesses described the proper procedures for performing the operation by the standard method and by the Lahey method. They stated that both methods were considered acceptable surgical technics. The surgeon was qualified to perform the operation. There was testimony that he took all precautions in performing the operation. There was no evidence that the operation would have been more successful if the Lahey method had been used. The patient's expert medical witness had never performed the particular operation. He based his opinion that the surgeon was negligent in performing the operation on the result thereof. The fact that the operation had an unfortunate outcome was not sufficient to establish negligence on the surgeon's part.

Dembicer v. Rosenthal, 279 N.Y.S.2d 943 (N.Y., Dec. 26, 1962).

Nursing Home Not Liable for Nurse's Fall—A practical nurse was not entitled to recover damages in her suit against a nursing home for injuries sustained when she fell on the home's icy sidewalk, the North Carolina Supreme Court ruled.

The nurse fell at approximately 11:00 p.m. while coming on duty to care for a patient of the home by whom she was employed. It had snowed heavily that afternoon. By 7:30 p.m. the snow had stopped and the ground began to freeze over. The sidewalk was well lighted and there were no obstacles to block one's view of it. The nurse herself testified that she knew that icy conditions were prevalent.

The nurse was an invitee on the home's property. The home was not an insurer of her safety. Its only duty to her was to exercise ordinary care to keep the premises in a reasonably safe condition and to warn her of any hidden dangers of which it had express or implied knowledge. It had no duty to warn her of an obvious condition or one of which she had equal or superior knowledge.

The evidence established that the nurse had full knowledge of the icy conditions in the area. There was no evidence from which it could be inferred that the home had superior knowledge of the sidewalk's dangerous condition. There was no evidence of any negligence on the home's part.

Wrenn v. Hillcrest Convalescent Home, Incorporated, 154 S.E.2d 483 (N.C., May 24, 1967).

Hospital's Parking Lot Exempt from Taxation—A trial court properly granted a hospital's application for a declaration that its parking lot was exempt from taxation, a New York intermediate appellate court ruled.

The statute provides that property used exclusively for hospital purposes is exempt from taxation. The parking lot was built for the sole purpose of providing off-street parking for patients, employees, and visitors, and was not for general public use. Signs at the lot entrance stated that it was for patients, employees, and vistors only, and some effort was made to limit public use of it. Employees were issued cards which admitted them to the lot free of charge. Others paid a fee of 25 cents. There was testimony that visitations were considered supportive therapy for patients. If a visitor were unable to pay the 25 cents, he would be permitted to park free of charge. The operation of the lot had resulted in some profit to the hospital. Such profit has been placed in the hospital's general operating budget, but it was only an infinitesimal part of the total budget.

The facts that the hospital makes a charge for use of the lot and has made some profit from it did not make it subject to taxation. The test for exemption was whether the lot was reasonably incident to the

hospital's major purpose. It was clear that the hospital's purpose in operating the lot was not to make a profit but to provide necessary services and facilities. Thus its operation was incident to the hospital's major purpose. The lot was therefore exempt from taxation.

Ellis Hospital v. Fredette, 279 N.Y.S.2d 925 (N.Y., May 15, 1967).

Heart Attack Established as Industrial Accident by Medical Evidence—The Workmen's Compensation Board did not err in awarding death benefits to the widow of an apartment building superintendent who died as the result of a heart attack suffered while he was working, a New York intermediate appellate court ruled.

After five minutes of standing on a ladder and stretching up in order to check the wiring of a ceiling lighting fixture, the superintendent complained of not feeling well. He come down from the ladder and died a few minutes later. Death was attributed to occlusive coronary artery heart disease. A physician testified that the unusual exertion of checking the wiring while standing on the ladder in an awkward and precarious position precipitated the fatal heart attack. That testimony constituted substantial medical evidence in support of the Board's conclusion that the work in which the superintendent was engaged was greater than the ordinary wear and tear of life, and that his death was, therefore, an industrial accident. In view of the substantial medical evidence that the superintendent's death was an industrial accident, the fact that his underlying physical condition may have contributed to the occurrence was not a bar to the recovery of benefits.

Postulka v. Linden Blvd., Inc., 279 N.Y.S.2d 754 (N.Y., May 15, 1967).

Attorney Awarded $500 Fee for Recovering $45.50 Fee for Physician—An attorney who succeeded, in a workmen's compensation proceeding, in recovering a fee of $45.50 for a physician was awarded a fee of $500 by the Rhode Island Supreme Court.

Three physicians who treated the injuries sustained by an employee while at work had filed a claim in the name of the employee to recover their fees from the employer. Their claims were for $160, $60 and $55.50. The first two claims were rejected because of the physicians' failure to comply with the statutory reporting requirements. The third physician was awarded $45.50 on his claim.

The attorney who prosecuted the physicians' claims requested a fee of $1,225 for his services. In support of his request, he submitted an itemized sworn statement showing that he spent about 35 hours in preparing, briefing and arguing the case.

Since the attorney was at least partially successful, he was entitled under the statute to a fair and reasonable fee. The amount in issue, the questions of law involved and whether they are unique or novel, the hours worked, the result obtained and the experience, standing and ability of the attorney who rendered the services are factors to be considered in determining what constitutes a fair and reasonable fee.

A fee of $500 would reasonably reward the attorney for that part of his work allocable to the portion of the proceedings in which some success was achieved, the court said. Despite the disproportion between the fee and the amount recovered, the fee was not unfair as to the employer, because it could easily and at small cost have avoided the extensive litigation. Nor was the award unfair as to the attorney, because he took the case knowing that without success there would be no reward.

Palumbo v. United States Rubber Company, 229 A.2d 620 (R.I., May 17, 1967).

Food Poisoning as Cause of Illness Established by Medical Evidence—An interstate bus driver who became ill after having eaten in a restaurant was entitled to recover damages against the restaurant for breach of warranty that the food was fit for human consumption, a New York trial court ruled. The driver's physician testified that his illness was caused by food poisoning.

While in New York City, awaiting assignment for a return to his base in Washington, D.C., the driver ate two meals at the restaurant, the second meal being at approximately 5:00 p.m. He ate no other food that day. At approximately 8:00 p.m., while making the return trip, he began to feel nauseous. During the next two hours, he had to stop the bus several times because of recurring violent and prolonged attacks of vomiting and diarrhea. When he could continue no longer, the trip was stopped and he was taken to a hospital.

The physician who examined and treated the driver at the hospital stated that during his approximately 20 years in practice, he had seen 10-12 cases of food poisoning a year. He stated that, on the basis of the facts, it was his opinion that the competent and producing cause of the driver's symptoms and condition when he examined him upon his admission to the hospital was poisoning caused by some item of food eaten in the restaurant. He stated that the driver's illness could not have been caused by anything he had eaten 36-48 hours earlier. There was also evidence that the driver had eaten all his meals the day before with his family and none of them became ill, and that the driver had not been under the care of a physician during the last five years except for sinus treatments.

Rytter v. Parthenides, 279 N.Y.S.2d 690 (N.Y., June 30, 1966).

Physicians Not Liable for Failure of Birth Control Pills—

In a suit by a patient who became pregnant and gave birth to a child after taking birth control pills, the patient's appeal from judgment in favor of the two physicians who prescribed the pills was dismissed by the Iowa Supreme Court. The trial court had directed a verdict in favor of the physicians on the grounds that the patient had sustained no physical or mental injuries as a result of the pregnancy and childbirth and that to allow damages for the normal birth of a normal child would be contrary to public policy. The Iowa Supreme Court based its dismissal of the appeal on the fact that the patient had filed a dismissal of appeal in the trial court.

Maley v. Armstrong (Sup. Ct., Iowa, July 7, 1967).
(Reference: Byron G. Riley, Jr., Esq., 526 Second Avenue, SE, Cedar Rapids, Iowa 52406).

No Liability for Fistula Following Hysterectomy—Damages could not be recovered in a suit against a surgeon by a patient who developed a fistula after undergoing a hysterectomy to correct endometriosis. The patient contended that the fistula was caused by the surgeon's taking a stitch in her left ureter during the operation. However, there was no expert medical testimony that, even if the stitch were taken, it would constitute negligence on the surgeon's part. The trial court's order granting the patient's motion for a new trial was reversed and the suit dismissed by the Missouri Supreme Court.

The patient had a normal postoperative recovery until the eleventh day, when her temperature began to rise and her abdomen began to swell. Two physicians were called in as consultants. On the basis of x-rays and a retrograde pyelogram, a diagnosis of a fistula in the ureter wall was made. A second operation was performed, in which accumulated urine was drained and a catheter inserted. After the second operation, the fistula healed and the patient made a normal recovery.

In support of her contention that the surgeon negligently put a stitch in the ureter during the hysterectomy, the patient testified that during the pyelogram procedure she heard one of the consulting physicians tell the surgeon that there was a stitch in the ureter and that that was the cause of the trouble. Three of her relatives testified that the surgeon told them that there was a stitch in the ureter.

The surgeon denied that the admissions testified to by the patient and her relatives had been made. He testified that he had not put a stitch in the patient's ureter. He said that if he had done so, it would have caused a fistula, leakage would have developed within 24-28 hours, and the patient would have become ill immediately after the hysterectomy. He stated the opinion that the fistula was caused by a rare complication of her endometriosis. He said that when the hormone supply to the endometriosis implants is cut off as the result of the hysterectomy, the implants dry up and form scar tissue. The scar tissue may interfere with the blood supply to the ureter, causing necrosis in the wall of the ureter, which could result in a fistula. The two consulting physicians and the physician who assisted the surgeon in the hysterectomy stated the same opinion as the surgeon with respect to the cause of the fistula.

An expert medical witness for the patient stated the opinion that if a suture had been passed through the ureter, that could account for the escape of urine into the abdominal cavity.

In order to make a submissible case of negligence, the patient was required to show that: the surgeon placed a stitch in the ureter; doing so constituted negligence; placing the stitch in the ureter caused the extravasation of the urine with its injurious consequences. The testimony as to the admission that the surgeon made to the patient's relatives was sufficient to warrant submission to the jury of the question of whether he placed a stitch in her ureter. However, the question of whether the placing of a suture in a ureter during a hysterectomy would constitute negligence was a matter requiring expert medical testimony. Both the defendant and his expert witness testified that even the best gynecologic surgeon might put a stitch through the ureter. The patient presented no expert medical testimony on that question. Therefore the trial court should have directed a verdict for the surgeon.

Hart v. Steele, 416 S.W.2d 927 (Mo., July 10, 1967). (Reference: Marion F. Wasinger, Esq., B and L Building, Hannibal, Missouri.)

$1,238,514 Damages Awarded for Paralysis Following Surgery—A California trial court jury awarded damages of $1,238,514 to a patient who has been paralyzed from the waist down since an operation in 1965 to correct a spinal cord condition. The suit was against a hospital and seven physicians and charged that they were negligent in the performance of the operation and in their postoperative care. The patient has undergone two operations since the one from which her paralysis resulted. The patient had asked for damages of $2,500,000. (News Release, Los Angeles, California).

Res Ipsa Loquitur Not Applicable to Injection Injuries—A hospital's motion for summary judgment in a patient's suit for injuries caused by an injection was properly granted by the trial court, the Nevada Supreme Court ruled. The doctrine of res ipsa loquitur was not applicable to a case such as this.

On the day after a gastric resection, the physician ordered that the patient be given a subcutaneous injection. A registered nurse administered the injection into the patient's left buttock. The patient immediately ex-

perienced a painful burning reaction at the injection site. A hematoma, ecchymosis and sloughing developed at the injection site which required medical care and subsequent surgery.

The fact that the results of the injection were not as hoped for was not sufficient to make the doctrine of res ipsa loquitur applicable. In order for the doctrine to be applicable, the event must be of a kind that does not ordinarily occur in the absence of someone's negligence. The administration of hypodermic injections was not a matter of such common experience as to permit a jury to infer that the patient's injuries could not have occurred except for negligence on the nurse's part, the court said. The full range of the possible consequences of an injection was not within the layman's common knowledge. Possible causes, other than the nurse's negligence, for the patient's injuries were: the patient's emotions or allergies; the manner of giving the injection, though not amounting to negligence; the patient's internal condition before or after surgery; and perhaps other factors. The nurse was not required to make a precise determination of those conditions before administering the injection.

Bialer v. St. Mary's Hospital, 427 P.2d 957 (Nev., May 24, 1967).

Mental Hospital Liable for Illegal Detention of Patient—A claimant was entitled to recover damages in a suit for false imprisonment against the state for his detention in a mental hospital under invalid commitment papers, a New York intermediate appellate court ruled.

From the beginning of his detention at the hospital, the claimant denied that he had ever been examined by the health officer who had signed the commitment papers. The health officer admitted at the trial that he had not examined the claimant. The hospital made no attempt at any time to check into the truth of the claimant's statements.

The hospital was not entitled to the benefit of the rule that if commitment papers are valid on their face, a hospital is not required to make an independent investigation into their validity. The hospital was put on notice of the papers' invalidity by the claimant's statements. Further, the hospital staff's examination of the claimant raised grave doubt as to his incompetency. Despite those things, the hospital did not check into the papers' invalidity. A phone call or casual investigation would have disclosed that they were invalid. The hospital resisted releasing the claimant even after he obtained a writ of habeas corpus and did so only shortly before the hearing was held on the writ. The hospital did not discharge him for more than a week after a court ordered his release on the basis of its finding that he was not mentally ill.

Wood v. State of New York, 280 N.Y.S.2d 609 (N.Y., May 23, 1967).

Patient's Hospitalization not "Primarily" for Diagnosis—An insured was entitled to recover from her hospitalization insurer the expenses incurred in connection with a hospital confinement during which various diagnostic tests were made, a New York trial court ruled. The hospitalization was for treatment of coronary disease, and not "primarily" for diagnostic purposes.

The insured's physician hospitalized her when the nausea and the stomach and chest pains about which she had consulted him did not improve. She had been suffering from diabetes for several years and had a coronary artery disease. While she was hospitalized, various diagnostic tests were made which resulted in the recommendation that she have her gallbladder removed. The operation was performed during a subsequent hospitalization.

The insurer contended that it was not liable for the first hospitalization because of the policy provision excluding coverage for a stay in a hospital which was "primarily" for diagnostic purposes or during which the services rendered were "primarily" diagnostic studies.

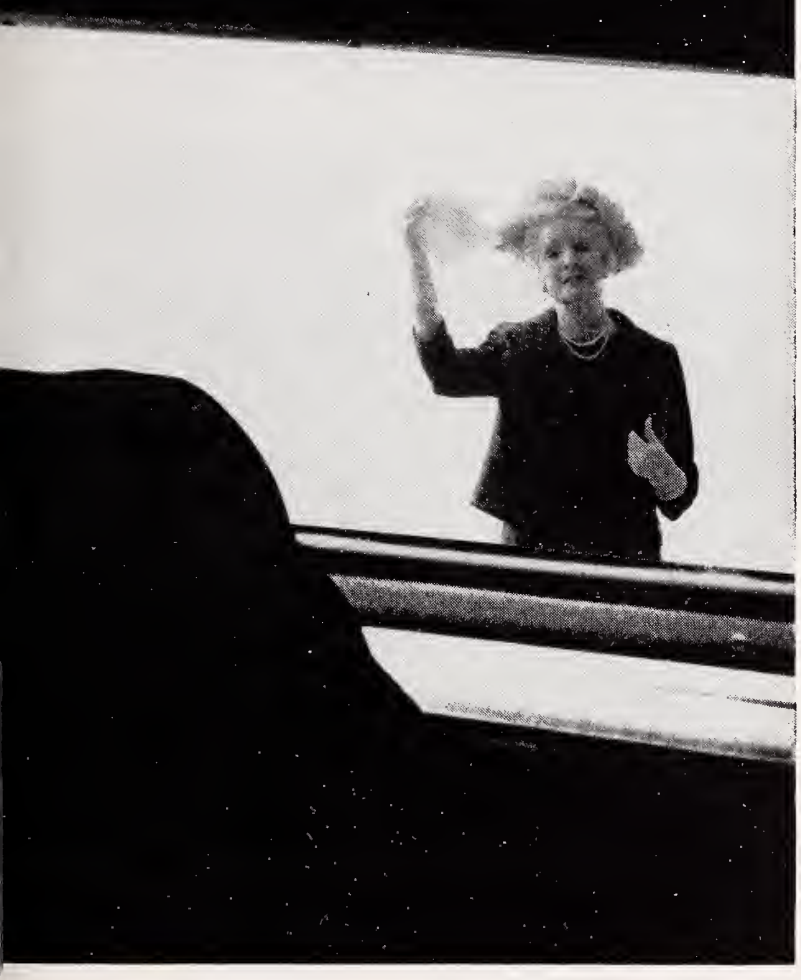
The word "primarily" means "of first importance." Since the policy did not cover diagnostic studies done on an ambulatory basis, the exclusion clause was intended to avoid payment for a hospital stay used as a means of obtaining payment for diagnostic studies which should have been performed without hospitalization. It was not intended to exclude payment for diagnostic studies made during a legitimate hospitalization.

The insured's physician testified that all of the diagnostic tests performed on her could ordinarily have been done on an ambulatory basis. However, he further testified that the making of the tests was not his primary purpose in hospitalizing her. He stated that he hospitalized her because her condition, particularly her cardiac problem, required it, and that bed rest and supportive care were furnished at the hospital as part of the treatment for her cardiac problem. That testimony was sufficient to establish that the hospitalization was not "primarily" for the purpose of making the diagnostic studies, but to provide her with care for her cardiac condition.

Schechter v. Associated Hospital Service of New York, 274 N.Y.S.2d 924 (N.Y., Sept. 26, 1966). ◄

Indications: Tofrānil is recommended for the treatment of depressive states of diverse psychopathology.
Contraindications: The concomitant use of Tofrānil and monoamine oxidase inhibiting (M.A.O.I.) compounds is contraindicated. Hyperpyretic crises or severe convulsive seizures may occur. Potentiation of adverse effects can be serious or even fatal. An interval of at least 7 days after M.A.O.I. therapy has been discontinued should be allowed before Tofrānil may be substituted. Initial Tofrānil dosage should be low, increases should be gradual, and the patient's progress should be carefully observed.
Warning: Clinical reports have suggested that there may be a risk of teratogenesis associated with the use of this compound during the first trimester of pregnancy. Unless, in the opinion of the prescribing physician, the potential benefits outweigh the possible risks, Tofrānil should not be used during the first trimester of pregnancy.
Cardiovascular complications, including myocardial infarction and arrhythmias, have occasionally occurred in susceptible individuals. Patients with cardiovascular disease should be given the drug only under careful observation and in low dosage.
Precautions: Since suicide is always a possibility in severely depressed patients and one which may persist until significant remission occurs, such patients should be carefully supervised during early treatment with Tofrānil. Some severely depressed patients may also require hospitalization and/or concomitant electroconvulsive therapy.
Because of its anticholinergic effect, caution should be observed in prescribing Tofrānil for patients with increased intraocular pressure.
In rare instances, transient cardiac arrhythmias have occurred in hyper thyroid patients and in patients receiving thyroid medication when Tofrānil was added to the regimen. Imipramine may block the pharmacologic activity of guanethidine an other related adrenergic neuron-blocking agents.
The drug is not recommended at th present time in patients under 12 y of age.
Adverse Reactions: Dryness of the mouth, tachycardia, constipation, turbances of accommodation, swe ing, dizziness, weight gain, urinary frequency or retention, nausea anc vomiting, peripheral neuritis, mild parkinson-like syndrome, tremors, rare cases of falling in elderly patients, confusional states (with suc symptoms as hallucinations and di orientation), activation of psychos schizophrenics and agitation (incl

When a milestone in life is marred by depression...



Often in the mind of the lonely, widowed, depression-prone individual, she's not gaining a daughter...she's losing a son. The occasion may be marred by such symptoms of depression as feelings of sadness, incapacity, helplessness and hopelessness.

In about 3 out of 4 cases, Tofrānil relieves symptoms of primary depression.

As maintenance therapy in primary depressive illness, it helps prevent relapse.

Although toxic reactions severe enough to require discontinuation of Tofrānil are uncommon, in patients with cardiovascular disease, thyroid disorders, increased intraocular pressure, or in those receiving anticholinergics (including antiparkinsonism agents), the special precautions listed in the Prescribing Information should be carefully observed. The use of Tofrānil in patients receiving M.A.O.I.'s is contraindicated.

ıypomanic and manic episodes) h may require dosage reduction or addition of a tranquilizer or porary discontinuation of the drug, eptiform seizures, orthostatic tension and substantial blood sure fall in hypertensive patients, ura, transient jaundice, bone mar- depression including agranulocy-, sensitization and skin rash uding photosensitization, eosino- a, and mild withdrawal symptoms udden discontinuation after pro- ed treatment with high doses. asional hormonal effects (im- nce, decreased libido, and estro- c effects) may be observed. pine-like effects may be more ounced (e.g. paralytic ileus) in eptible patients and in those g anticholinergic agents (includ- antiparkinsonism drugs).
atient Adult Dosage: Initially, g. daily, increased, if necessary, to 150 or 200 mg. Maintenance dosage may be lower, 50 to 150 mg. daily, if possible.
Geriatric and Adolescent Dosage: Initially, 30 or 40 mg. daily, which may be increased according to response and tolerance. It is usually unnecessary to exceed 100 mg. daily.
A lag in therapeutic response, lasting from a few days to a few weeks, should be expected. When dosage recommendations are already being followed, increasing the dosage does not normally shorten this latency period and may increase the incidence of adverse reactions.
Availability: Tofrānil: Round tablets of 25 and 50 mg.; triangular tablets of 10 mg. for geriatric and adolescent use; and ampuls, each containing 25 mg. in 2 cc. for I.M. administration.
(B)46-850-C
For complete details, please refer to the full Prescribing Information.

Tofrānil® imipramine hydrochloride
Geigy

Geigy Pharmaceuticals
Division of Geigy Chemical Corporation
Ardsley, New York 10502

DAY BY DAY WITH THE FDA

From the FDA Reports on Enforcement and Compliance.

The arrest of a truckdriver by New York State Police led to the disclosure that a Florida pharmacist was selling Benzedrine capsules without prescriptions. Further investigation indicated that the prescription department involved did not have good records of controlled drugs. The complete findings were that the original February 1, 1966, inventory was absent, that purchase orders for controlled drugs were missing, that the records in general were inadequate and that drugs were sold frequently without prescription. The owner's license was revoked.

* * *

Two Chicago policemen were shot at by a drug peddler under investigation. One policeman had his shirt and jacket ventilated and the peddler was killed. Fifteen Dexedrine Spansules and 30 unidentified white tablets were found on the peddler. In his apartment were 25 amphetamine capsules and a tin of marijuana, other tablets and a hypodermic needle. What's more the revolver he used to ventilate the policeman's jacket was stolen property.

* * *

In Nashville, Tennessee, a judge requested an immediate reinspection of a warehouse which had been reported and adjudged to be insanitary. When he found the insanitary conditions had not been corrected during the proceedings he levied a fine of $4,000 and promised an additional fine of $8,000 if the mess wasn't cleaned up within six months.

* * *

Everyone should know that tomatoes imported into Indiana should be top quality or better to have a chance. However, tomatoes raised in Florida, canned in South Carolina and shipped to Indianapolis were seized by the FDA—3,860 cases all contaminated with fly eggs and maggots.

* * *

Three hundred dollars worth of Vitamin B_1 tablets were seized in Missouri because the labeling indicated that the product was adequate and effective as a treatment for loss of appetite, fatigue, loss of weight, burning of the soles of the feet, tenderness of the calf muscles, muscle cramps and general systemic muscular weakness, but gave no directions for use of the tablets in the treatment of acute Vitamin B_1 deficiency.

* * *

Counterfeit money is easy to understand—counterfeit fish is something else. The FDA seized "counterfeit fish" in Salt Lake City. The packages were labeled halibut steaks. Not halibut says the FDA—the meat was turbot or Greenland halibut which is not halibut at all. Also not steaks says the FDA—the portions were made of compressed fish particles.

* * *

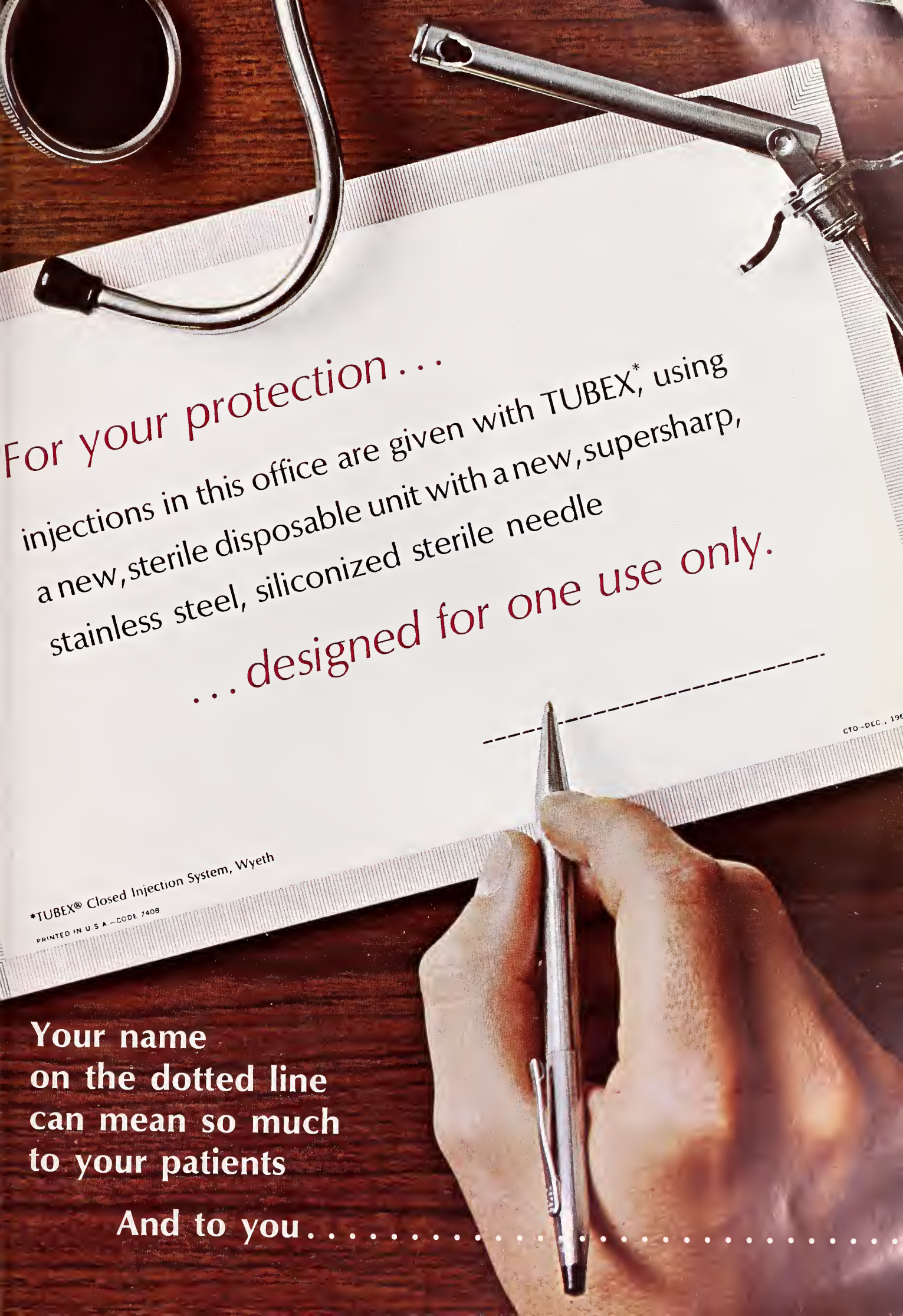
Firecracker-making kits designed to sell to youngsters have been declared hazardous toys and are banned from interstate commerce. Sold by mail through advertisements in hobby magazines, the kits were available in various sizes. The smallest kit contained components to make 40 3-inch firecrackers.

* * *

Fifty pounds of pure methamphetamine powder, worth $1,750,000 on the black market, was seized in New York recently. One man was arrested. A station wagon he had rented was found to contain $1,300 worth of chemicals. A house which he had leased contained an elaborate laboratory and quantities of chemicals from which LSD could be made.

* * *

A sheep-spraying operation in Idaho was accomplished near a creek bank. 66,000 pounds of trout in a commercial fish hatchery one and one half miles downstream were killed. Toxaphene, one ingredient of the sheep-dip, was recovered from the dead fish. Thirty-three tons of fish is a lot of fish. ◄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ABSTRACTS

BOOK REVIEWS

DEVELOPMENT OF THE LUNG

Ciba Foundation Symposium, edited by A. V. S. De Reuck & Ruth Porter, Little, Brown & Co., Boston, 1967; 134 illustrations; 408 pages; $13.00.

Some two dozen prestiginous pediatricians, chest surgeons, professors of zoology and similar luminaries gathered to discuss the stated subject: The Development of the Lung.

No matter how "simplified", the sheer complexity of the topic made reading the symposium a formidable task, indeed. Actually, I do not feel qualified to pass upon the many esoteric gems tossed my way and glittering on almost every page. It is of interest to know that a mere *two* mm. of Hg. O_2 suffices at the mitochondrial membranes. I learned for the very first time that (p. 30) pH can and does vary with T. The partial pressures of O_2 and CO_2 in the blood of turtles vary decisively with variations of the water in which the creatures are immersed. The differential equations lost me but the conclusion was clear enough.

I liked very much the "phylogeny recapitulates ontogeny" ploy anent the first breath drawn by the newborn human. It states its thesis more clearly than anything I have had the pleasure of reading hitherto.

All in all, this is a book that deserves a niche on library shelves of medical schools, hospitals and similar institutions. I doubt the benefit that would accrue the average physician perusing this most learned symposium.

ARNOLD LIEBERMAN, M.D.
New York, N.Y.

HANDBOOK OF PHYSICAL THERAPY

Robert Shestack, Springer Publishing Company, Inc., New York, 1967; Second edition; 212 pages.

The role of physical medicine in the therapeutic armamentarium has witnessed a marked upsurge in recent years. The book was made available presenting the subject concisely from the point of view of a practicing therapist.

The author states "that the physician and members of allied professions will find the book useful for quick reference on potentialities and uses of the various modalities employed by the physical therapist." The text has been divided into three main sections. First, the section on modalities gives the reader an idea of the resources in the field. Second, there is a survey of pathological conditions arising in the practice of medicine in which physical therapy of one kind or other has proven beneficial. The third section discusses therapy for conditions frequently seen by the general practitioner. Multiple treatments are often suggested for one particular condition; the reason is that not everyone responds alike to the same type of treatment, just as different people respond differently to one and the same drug. A list of readings in physical therapy is given at the end of the book.

The handbook is not an all-inclusive textbook on physical therapy and rehabilitation, but serves only to give the general medical practitioner or member of an allied profession a simplified view of what physical therapy has to offer to patients who come under their care.

The author does not relate his own experience, but gathered the information from a number of reliable sources.

HERMAN WING, M.D.
W. P. LOH, M.D.
Gary

Abstracts From Various Literature, Prepared by AMA

COLLAGEN SUTURES: CLINICAL AND EXPERIMENTAL COMPARISON WITH CONVENTIONAL CATGUT

E. R. Jennings and B. A. Addison (Brunswick, Ga.)
Amer. Surg. 33:221-226, (March), 1967.

Fifty abdominal closures were done in a double-blind study. Comparative studies of collagen and conventional catgut in identical sizes revealed no appreciable differences in performance. In the materials tested, clinical and animal evaluation revealed collagen sutures to be an effective replacement for standard catgut sutures.

BASEDOW'S (GRAVE'S) SYNDROME WITH OBESITY

H. Bricaire and J. Leprat (Hopital Cochin, 27, rue de Faubourg, St. Jacques, Paris)
Presse Med. (Paris) 75:1159-1164, (May 13), 1967.

Seventeen patients with paradoxical obesity in the course of otherwise typical Grave's disease are presented. The obesity was found mainly in young women in connection with menstrual ir-

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regularities and edema due to retention of water. Pathogenesis seems to depend on water and electrolyte imbalance produced directly by hyperthyroidism. It is postulated that it may depend on a diencephalic abnormality with secondary endocrine metabolic disturbance. Obesity often persists after restoration of normal thyroid function and poses a therapeutic difficulty.

TEN-YEAR FOLLOW-UP OF TREATMENT OF TWO PHENYLKETONURIC BROTHERS

C. M. Poser (Kansas City General Hosp., Kansas City, Mo.)
Arch. Neurol. 16:658-663, (June), 1967.

Two siblings with atypical clinical manifestations of phenylketonuria were given a low phenylalanine diet when they were respectively almost four and three years old. They were considered to be only mildly mentally retarded but with a severe deficit in speech development. The children remained on the restricted dietary regimen for over five years and showed remarkable improvement in speech and mentation. Both were considered to be within the normal range at a time shortly before the dietary regimen was discontinued. When retested four years later, both children, now respectively 13 and 12 years of age, were found to have continued functioning well within the normal range for both speech and intelligence, in spite of the fact that their serum phenylalanine level remains much above normal.

MANAGEMENT OF CHLOROQUINE-RESISTANT FALCIPARUM MALARIA

R. E. Blount (Fitzsimons General Hosp., Denver)
Arch. Intern. Med. 119:557-560, (June), 1967.

Thousands of military personnel return to the United States every month from South Vietnam where they may have been exposed to chloroquine-resistant falciparum malaria. Repeated thick and thin smears should be studied for malaria parasites whenever any recent such returnee becomes ill, as these strains are life-threatening. A defibrination syndrome, apparently due to disseminated intravascular coagulation, occurs in patients seriously ill with this type of malaria. Careful attention to fluid and electrolyte balance is obligatory and fluid intake and output, and the daily body weight, should be accurately recorded. Marked biochemical and hemodynamic disturbances were documented. Aggressive therapy with quinine is indicated and heparin therapy appears useful. Dexamethasone is indicated in the management of cerebral malaria. Mixed infections with vivax, quartan, and falciparum plasmodia frequently occur in the jungle. Chloroquine is still the drug of choice for *Plasmodium vivax* and *Plasmodium quartan.*

THE MEDICAL DATA SCREEN

K. Brodman (525 E. 68th St., New York) and L. S. Goldstein
Arch. Environ. Health 14:821-826, (June), 1967.

The Medical Data Screen (MDS) aids the physician in the diagnosis of 100 common diseases. It uses a questionnaire to collect the patient's history and a computer to analyze the reported symptoms. The method identified over 70% of these diseases in employees of an insurance firm; it has been shown previously to have identified like proportions among private patients of internists and of a general practitioner. The MDS method is essentially a laboratory procedure that brings to the medical profession a type and volume of information about the whole patient which is not otherwise readily available. Some of the advantages of the method include the wide applicability of the comprehensive information it develops, the relevance of this information to the medical and psychiatric status of patients, the high validity of the information, and the ease and speed with which it is obtained.

PROLONGED VENOUS CATHETERIZATION AS CAUSE OF SEPSIS

H. Smits and L. R. Freedman (Yale University School of Medicine, 333 Cedar St., New Haven, Conn.)

New Eng. J. Med. 276:1229-1233, (June 1), 1967.

Septicemia attributed to prolonged venous catheterization occurred in nine patients as a nosocomial infection. In five patients the sepsis responded satisfactorily to therapy, but four others developed oliguria, azotemia and shock. During the seven-month period of study, approximately one-half of the cases of staphylococcal sepsis in the entire hospital were attributable to complications of venous cannulation. Other bacteria recovered included *Klebsiella*, *Escherichia coli*, *Streptococcus viridans*, and *Clostridium perfringens*. Considering all causes of positive blood cultures, about one in 11 were believed due to this cause. Because of the technical ease with which venous catheters can be inserted percutaneously, they are now used commonly and are frequently maintained for long periods of time. The hazards reported here suggest that the venous catheter, however inserted, should be placed only when absolutely necessary, maintained with appropriate aseptic and antibiotic precautions and removed as soon as possible. If the need for catheterization still exists after 48 hours of proper maintenance, a new catheter should be placed at another site.

A RADIOGRAPHIC TECHNIC FOR DIAGNOSIS OF PERITONEAL PENETRATION IN ABDOMINAL STAB WOUNDS

S. Tobias, F. A. DeClement, and J. C. Cleveland (333 Cedar St., New Haven, Conn.)

Arch. Surg. 95:27-29, (July), 1967.

A safe, dependable radiographic technic is described for the diagnosis of peritoneal penetration in abdominal stab wound cases. Use of this method allows a basis of case selection whereby prompt exploration of penetrating injury can be effected while allowing conservative management of nonpenetrating injury. Considerable economic saving and avoidance of unnecessary surgery is thereby possible. Thirty cases are presented. The radiographic technic involves insertion of a #18 French catheter into the stab wound, securing the catheter by a 00 silk purse-string suture. Thirty cc to 50 cc of 50% diatrizoate is hand-injected under pressure and x-ray exposures are made in the anteroposterior, lateral and oblique positions. A characteristic pattern is evident for penetrating and nonpenetrating injuries.

EVALUATION OF INDOMETHACIN BY A CONTROLLED, CROSSOVER TECHNIC IN 30 PATIENTS WITH ANKYLOSING SPONDYLITIS

T. D. Kinsella et al. (Royal Victoria Hospital, Montreal)

Canad. Med. Assoc. J. 96:1454-1459, (June 3), 1967.

A clinical evaluation of indomethacin employing a controlled, crossover technic with an inert placebo was undertaken in 30 patients with ankylosing spondylitis. Evaluation of the results indicated that a significant number of patients experienced side effects in the form of headache and dizziness while receiving indomethacin in doses above 150 mg/day. Many other side effects reported by the patients were not found to occur at a statistically significant level. The significance of pulmonary infections encountered in three patients was reviewed. Relief of chronic spinal pain and peripheral arthralgia occurred in 14 and 16 patients, respectively ($p>0.05$). Relief of morning stiffness and acute

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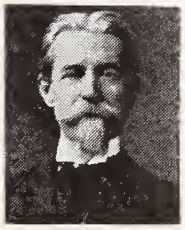

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exacerbations of pain in segments of the spine or the involved joints were not significant.

EXPERIENCE WITH THE USE OF FROZEN BLOOD

R. Perrault et al. (National Defense Medical Center, Ottawa)
Canad. Med. Assoc. J. 96:1504-1509, (June 10), 1967.

Freezing technics for the preservation of blood have opened new avenues in the past ten years; it is now possible to store blood for periods of five years or more. Several technics have been developed, either using liquid nitrogen and the rapid freezing principle, or using cryophylactic agents such as glycerol, where the rate of freezing is unimportant and the blood is kept at −5 C. The latter methods require washing of the blood prior to transfusion to remove the intracellular glycerol and thus avoid post-transfusion osmotic hemolysis. At the National Defense Medical Center in Ottawa, the Huggins' technic of freeze preservation of blood was adopted. This novel method of deglycerolization is based on the reversible agglomeration of erythrocytes in electrolyte-free glucose.

HOUSE DUST MITE (DERMATOPHAGOIDES PTERONYSSINUS) AND THE ALLERGENS IT PRODUCES: IDENTITY WITH THE HOUSE DUST ALLERGEN

R. Voorhorst et al. (Department of Allergology of the University Hospital, Leiden, The Netherlands)
J. Allergy 39:325-339, (June), 1967.

A theory on the origin of the house dust allergen must account for the following factors: (1) its ubiquitous occurrence, which is world-wide, (2) its specificity, (3) the seasonal variation in the allergen content of the dust (with an autumnal peak), which suggests that the house dust allergen is the result of a biological process, and (4) the quantitative element—the house dust allergen must be produced by the causal factors in huge quantities. The finding of the house dust mite—*Dermatophagoides pteronyssinus* seems to supply an answer to all these factors: (1) Although in varying numbers, this particular species of mite has been found in all dust samples from many different countries, (2) the allergen produced by it is highly specific, (3) the number of mites in house dust shows a seasonal periodicity with a peak in autumn, and (4) mite cultures contain so much allergen that extracts diluted even to 0.000001% still give skin reactions in persons sensitive to house dust. Finally, the keystone of the theory is formed by the fact that after being made equivalent, extracts of house dust and mite cultures gave skin reactions which were indistinguishable.

LEVITATION IN TREATMENT OF LARGE AREA BURNS

J. T. Scales et al. (Royal National Orthopedic Hospital, Stanmore, Middlesex, England)
Lancet 1:1235-1240, (June 10), 1967.

In the treatment of large area burns, patients can be supported on an air cushion bed which uses pressures less than those obtained by normal support on buttocks and shoulders. The bed consists of a series of air pockets which deform to the shape of the patient and maintain an air seal. Volunteers found the bed comfortable, and no physiological changes were noted. In two cases of large area burns the wounds dried rapidly. Sterile air environment was provided to reduce the risk of bacterial infection. ◀

20 Years of Service

(One of a series prepared by Blue Shield)

(From a speech made by John F. Bolton, Jr., Director, Department of Insurance, State of Illinois, at the 1966 Blue Shield Annual Program Conference, Chicago, Illinois.)

As director of the department of insurance, I cannot fail to recognize the tremendous accomplishments which have been achieved by the Blue Shield Plans. Organized as they were to provide the American public with better medical care, it seems to me that the Blue Shield Plans survived and succeeded for two reasons.

First, because the practicing physicians who participated in the early plans in California and Michigan were willing to place the goals of these plans ahead of their own, and they did this when they accepted pro rata payments to prevent the insolvencies of these early plans.

Secondly, the plans succeeded because they met the needs of the public.

Blue Shield has met the needs of the public for adequate medical care in a way which is unequivocally American. Through the competitive free enterprise system, Blue Shield makes it possible for millions and millions of people, voluntarily, to prepay their medical bills, and at the same time preserve their free choice of physician.

Your numerical growth, which has reached a point where over 25% of the United States population is covered by the Blue Shield Plans, is evidence of this tremendous success. May I add that your underlying philosophy has contributed to this success. I refer, of course, to the concept of community organization, orientation and participation. In attempting to serve the entire community, not just a portion, you have served the entire nation.

Your influence on the coverage and the practices of the commercial insurance carriers must be recognized. Let me mention only two of the ways in which the public has benefited from the competition between Blue Shield and the insurance carriers.

Not too long ago $15 or $20 represented the top daily room and board benefit available from an insurance carrier. Today, insurers have written hundreds of full semi-private board and room contracts. Not long ago surgical fee schedules with a maximum of $150 to $250 were the largest available. Today commercial insurers will provide schedules of $600 or more.

These contracts are being written because the Blue Cross and Blue Shield Plans were ready to provide these coverages and because the carriers know that they will not get the business unless they can match benefits.

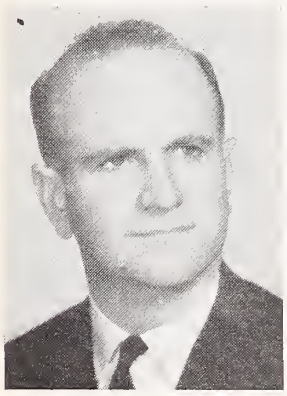
The largest single Blue Plan influence on insurance companies has been its retention and overhead cost. Group enrolled retention costs, that is as distinguished from claim or benefit expense, have fallen sharply in the past 15 years. The credit for a gain to consumers of nearly $1 billion goes principally to competition in which the Blue Plans can claim their full share of responsibility.

Nor have you rested on your past laurels. The extent and the quality of Blue Shield coverage continues to increase. A listing of advances should remind you of more recent accomplishments: the prepayment of dental care, increasing availability of coverage for college students, in-hospital medical care including concurrent care by two or more physicians, and psychiatric care—all evidence of continued progress.

The disturbing and seemingly endless problem of medical care and its costs has received much attention from insurance carriers as well as from the Blue Shield Plans. The increasing use of medical utilization review systems, the introduction of coordination of benefits provisions, and the addition of workmen's compensation and subrogation clauses, are evidence of your concern in this problem area. ◄

DOCTORS SNIVELY AND BENNETT ELECTED TO THE JOURNAL EDITORIAL BOARD

Drs. W. D. Snively, Evansville and Jene R. Bennett, South Bend, have been elected to the Editorial Board of *The Journal* for three-year terms.



Dr. Snively

Dr. Bennett

Dr. Snively, a pediatrician and vice president of Medical Affairs for Mead Johnson International, is a member of the Board of Trustees and past president of the American Writers' Association. He is a Clinical Professor of Pediatrics at the University of Alabama Medical Center and a Visiting Lecturer at the University of Evansville School of Nursing, Deaconess Hospital School of Nursing and the University of Kentucky School of Nursing.

Dr. Bennett is a pathologist, a former ISMA delegate and councilor and has been a member of the Editorial Board since 1958.

Dr. Buchanan Named

Dr. Wallace D. Buchanan, South Bend, has been nominated by the American College of Radiology to serve a second year as its representative to the Interspecialty Committee of the American Medical Association.

Dr. Matzen is Guest Speaker

Dr. Richard N. Matzen, Bluffton, spoke on "Chronic Cough and Tracheal Collapse" at a recent meeting of the Rush County Tuberculosis Association.

Dr. Striker to Speak at John Shaw Billings History of Medicine Society

Dr. Cecil Striker, Cincinnati, will be the principal speaker at the February 14 meeting of the John Shaw Billings History of Medicine Society. His topic will be "Famous Faces in Diabetes."

The group meets at the I.U. Student Union Building, Indianapolis. The social hour begins at 6:00 p.m., dinner at 6:45 and the speaker at 8 p.m.

Dr. Bowers is Speaker

Dr. Garvey B. Bowers, Kokomo, spoke on "The Use of Hypnosis in the Treatment of Asthma, Hay Fever and Migraine Headaches" at a recent meeting of the Kokomo High School Future Nurses Club. Dr. Bowers also lectured on his tour of the Soviet Union at the seventh annual awards banquet of the Hi-Y Clubs of Kokomo.

Young Pediatrician Volunteers for AMA Volunteer Viet Nam Program

Patricia Kay Moseley, M.D., 28, of 2624 Cold Springs Manor Dr., Indianapolis, is in South Viet Nam for two months, serving the civilian population with the American Medical Association Volunteer Physicians for Viet Nam.

Dr. Moseley graduated from the University of Southern California, Los Angeles, and received her medical degree from the University of Southern California Medical School.

She completed, in November, a two-year residency in pediatrics at Riley Hospital, Indiana University Medical Center.

Dr. Wing is Speaker

Dr. Herman Wing, Gary, discussed his trip to Russia as the first American Medical Association delegate to the Soviet-American Conference on Physical Medicine at a recent meeting of the Gary Methodist Hospital Auxiliary. Dr. Wing also was guest speaker at a recent meeting of the Northwest Indiana Hospital Auxiliary Association at Schererville.

Indiana University Student Awarded New York Life Insurance Scholarship

Douglas F. Johnstone, son of Mrs. Mary Catherine Johnstone, Route 6, Martinsville, and the late Dr. Alan Johnstone, has been awarded the New York Life Insurance Scholarship for this school year at the Indiana University School of Medicine.

The unique all-inclusive scholarship program was established last year. Each scholarship is intended to cover tuition, room, board, fees, books and equipment, and if the student maintains his academic standard will be renewed each year for the four years of medical school.

Mr. Johnstone is a graduate of Martinsville High School and Purdue University, where he received the B.S. degree in electrical engineering last June and where he maintained an almost straight "A" average. Mr. Johnstone's father was a well-known practicing physician in Plainfield and Martinsville. The son has supported himself throughout his premedical school years after his father's early death.

Under the program, the scholarship will be awarded to an entering freshman each year and will be subject to annual renewal based on satisfactory performance of the recipient as determined by the school. Thus, when the plan is in full operation,

there will be four students holding the scholarships at the same time.

The I.U. School of Medicine was one of 11 schools in the country selected by New York Life for the scholarship program.

Dr. Goebel Speaker

Dr. Carl W. Goebel, Fort Wayne, recently spoke on "Prophylaxis of Delinquency and Sex Deviation" at a meeting of the Fort Wayne Academy of Medicine and Surgery.

Dr. Scully is Speaker

Dr. William E. Scully, Terre Haute, spoke on "Parent-Physician Relationship Concerning Mental Retardation" at a recent meeting of the Parke County Association for Parents and Friends of Retarded Children at the Activity Center in Rockville.

Dr. Lang Speaker

Dr. Erich K. Lang, Indianapolis, attended the meeting of the Radiological Society of North America recently in Chicago and spoke on "Roentgenographic Diagnosis of Primary Carcinoma of the Ureter" and "Roentgenographic Assessment of Bladder Tumors."

Educational Material Available On the Problems of Epilepsy

Epilepsy pamphlets, some suitable for lay reading, others for information to professionals, are available on request from the Epilepsy Foundation. Write the Foundation at 1419 H Street, N. W., Washington, D. C. 20005 for a list and order form for educational material.

Dr. Frahm is Speaker

Dr. Charles J. Frahm, Homewood, Ill., recently spoke on "The Future of Medicine" at the banquet of the American Association of University Women held at Griffith.

Case Against Cigarette Smoking Is Topic for Educational Film

The case against cigarette smoking is presented in the educational motion picture film entitled "Getting Through." It is 16 mm, black and white, sound, and runs for 20½ minutes. Burt Lancaster is the principle narrator.

The editorial content discusses the paradox of the smoking habit—society's acceptance and promotion of it, and medical science's rejection of it as being a health hazard.

Recommended for teenagers and young adults, teachers, youth workers and parents, the film is also ideal for presentation before a group discussion session. On free short-term loan from the National Medical Audiovisual Center (Annex), Chamblee, Georgia 30005.

Dr. Halfast Presents Program

Dr. Richard W. Halfast, Kokomo, recently presented a program on "Orthopedics" for members of the Clinton County Registered Nurses Club at St. Joseph's Hospital, Kokomo.

New Syntex Official

Dr. Albert Bowers has been appointed president and chief executive officer of Syntex Laboratories, the U. S. subsidiary of Syntex Corporation. He has been executive vice president since August. Before that he was successively associate research director and vice president for research in Mexico, and later vice president for research in Palo Alto.

Immunization Information Booklet Now Available to Physicians

"Immunization Information for International Travel", the booklet published annually by the Public Health Service, is larger each year. The current edition is now available. It totals 120 pages, and includes all the up-to-date information a doctor will require while readying a traveler for overseas destinations.

All previous booklets are obsolete. The booklet may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402 at 40 cents per copy, 25% discount for orders of 100 copies or more.

Dr. Proudfit Presents Program

Dr. Charles H. Proudfit, South Bend, recently presented a program at Teegarden's First Brethren Church, Plymouth, about his work as a volunteer in the Congo in Africa.

Drs. Burdette, Eicher, and Dunkin Elected

Dr. Harold F. Burdette, Indianapolis, was recently elected president of the medical staff of Winona Hospital. **Dr. Palmer O. Eicher, Indianapolis,** was elected vice-president and **Dr. Ramon S. Dunkin, Indianapolis,** secretary.

Dr. Work Elected

Dr. Bruce A. Work, Frankfort, was recently elected to active membership in the American Academy of General Practice.

Dr. Hogle on Panel

Dr. Frank D. Hogle, Warsaw, recently took part in a television panel discussion in Detroit presented as a feature of the annual meeting of the American Psychiatric Association. Topic of the discussion was "Why Don't Psychiatrists Do Something About The Jailing of Mental Patients?"

Dr. Senseny is Speaker

Dr. Eugene Senseny, Fort Wayne, spoke on "Ministering to Body, Mind and Soul" at a recent meeting of the Fort Wayne Ministerial Association.

Dr. Davis Speaks

Dr. William H. Davis, New Market, spoke on "Mental Health" at a recent meeting of the Montgomery County Mental Health Association.

Dr. Scully is Speaker

At a recent meeting of the Vigo County Tuberculosis Society, **Dr. William E. Scully, Terre Haute pediatrician,** discussed "The Child Centered Tuberculosis Program."

Dr. Rifner Speaks

Dr. Eugene S. Rifner, Van Buren, spoke on legislation and the importance of politics to the physician at a recent meeting of the Woman's Auxiliary to the Grant County Medical Society.

Dr. Steen is Speaker

Dr. Lowell H. Steen, Whiting, spoke on "Care of the Acute Coronary" at a recent meeting of the LaPorte County Medical society.

Dr. Miller Speaks

Dr. John D. Miller, clinical director of the pulmonary disease division at Indianapolis General Hospital, spoke at the annual meeting of the Vanderburgh County Tuberculosis Association. ◄

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Benjamin del R. Tiongson, 2050 Cayetano Arellano St., Pureza Subd., Sta. Mesa, Sampaloc, Manila, Philippines

SPECIALISTS

Sami Basaranlar, 574 Benson St., Camden, New Jersey—*Anesthesiology*

Bennie W. Van Deest, 1017 Highland Oaks Dr., Dallas, Texas 75232—*Internal Medicine with Gastroenterology*

Ralph W. Bubeck, 1029 Kendall Rd., Wilmington, Del. 19805—*Internal Medicine*

M. H. Rizk, 6691 Van Buren St., Crown Point, Ind.—*OB-GYN*

Kenneth Teich, 2676 Heathfield Rd., Birmingham, Mich. 48010—*OB-GYN*

Walter C. Miller, 501 Bellarmine Dr. West, Joliet, Ill. 60436—*Pediatrics*

Jay I. Rozen, Robindale Apts. G-12, West Chester Pike, Havertown, Pa. 19083—*Radiology*

Raul Tramontana, 13158 Forestdale Dr., Garfield Heights, Ohio 44125—*Surgery*

Pastor D. Aluning, 4116 Judith Court, Apt. A., St. Louis, Mo. 63118—*Surgery*

Irineo Z. Gutierrez, V. A. Hospital, Marion, Ind. 46952—*Surgery*

Richard E. Dean, 10413 Lower River Rd., Valley Station, Ky. 40272—*Surgery*

Diego Aranda, St. Branabas Medical Center, Livingston, New Jersey 07039—*Plastic Surgery*

ADDITIONAL LOCATIONS

Howard County—RUSSIAVILLE—Located in southwestern Howard County with a population of 1,500 and a trading area population of 10,000. A Community Medical Center is being planned with the help of the Sears-Roebuck Foundation. One physician located in the town.

Madison County—MARKLEVILLE—Located eleven miles from Anderson and fourteen miles from New Castle where hospital facilities are available. Population 450, with a trading population of 5,000. Financial help available from local bank. Several organizations interested in securing a physician. Contact Mr. Benjamin Batchfield, Mr. Fred Markle and Mr. Charles Mock, Markleville 46056, for details.

Delaware County—MUNCIE—population 80,000 with a metropolitan area of 100,000. Office and practice of the late Dr. Robert M. Butterfield, 315 W. Jackson Street, is available. Office completely equipped for general practice, including minor surgery, cast applications, electrocardiograms and minor laboratory procedures. Office located adjacent to the downtown business area with a family size apartment available above the office. Contact Mrs. Robert M. Butterfield, 222 Winthrop Rd., Muncie. Phone 317-282-6270. ◄

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Annual Meeting Dates of Professional Medical and Allied Organizations

AMERICAN MEDICAL ASSOCIATION ANNUAL CONVENTION
Date June 16-20, 1968
Place San Francisco, Calif.

NORTHERN INDIANA PSYCHIATRIC SOCIETY
Date Fourth Wednesday of every month, September through June
Place For location and program, inquire Beatty Memorial Hospital, Westville

INDIANA NEUROPSYCHIATRIC ASSOCIATION
Date Second Wednesday of the month, October through May, excluding December
Place The Athenaeum, Indianapolis

INDIANA ROENTGEN SOCIETY
Date May 5, 1968
Place Indianapolis

AMERICAN COLLEGE OF SURGEONS, INDIANA CHAPTER
Date May 17-18, 1968
Place Stouffer Inn, Indianapolis

INDIANA ACADEMY OF GENERAL PRACTICE
Date March 26-28, 1968
Place Indianapolis

INDIANA ACADEMY OF OPHTHALMOLOGY AND OTOLARYNGOLOGY
Date May 1-2, 1968
Place Culver Inn, Culver

INDIANA STATE MEDICAL ASSOCIATION CONVENTION
Date October 14-17, 1968
Place Fort Wayne

INDIANA PUBLIC HEALTH ASSOCIATION
Date April 30-May 1, 1968
Place Howard Johnson's Motor Lodge, Indianapolis

INDIANA SOCIETY OF ANESTHESIOLOGISTS
Date May 25-26, 1968
Place Marott Hotel, Indianapolis

INDIANA STATE DENTAL ASSOCIATION
Date May 19-20, 1968
Place Murat Theater, Indianapolis

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Contraindications: Barbiturates should not be administered to anyone with a history of porphyria, nor should they be given in the presence of uncontrolled pain, because excitement may result.

Warning: May be habit-forming.

Precautions: Tuinal should be used cautiously in patients with decreased liver function, since prolongation of effect may occur.

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Overdosage: C.N.S. depression. Symptoms—Depression of respiration and of superficial and deep reflexes, slight constriction of the pupils (in severe poisoning, dilation), decreased urine formation, lowered body temperature, coma. Treatment—Symptomatic and supportive (gastric lavage; intravenous fluids; maintenance of blood pressure, body temperature, and adequate respiration). Dialysis may speed removal of barbiturates from body fluids.

Dosage: 50-200 mg. (¾-3 grains) at bedtime.

[031767]

Additional information available to physicians upon request.
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INDIANA STATE BOARD OF HEALTH

MONTHLY REPORT—November, 1967

Disease	Nov. 1967	Oct. 1967	Sept. 1967	Nov. 1966	Nov. 1965
Animal Bites	616	760	1134	599	509
Chickenpox	422	91	26	224	296
Conjunctivitis	36	42	43	36	95
Diphtheria	0	1	0	0	0
Dysentery, Unspecified	40	33	32	43	67
Gonorrhea	581	398	583	322	304
Impetigo	156	204	139	118	157
Infectious Hepatitis	69	63	33	46	44
Infectious Mononucleosis	82	53	41	49	89
Influenza	1005	777	226	514	1088
Measles					
Rubeola	26	24	5	33	170
Rubella	21	21	9	61	66
Meningitis, Meningococcal	5	1	4	3	1
Meningitis, Other	11	3	6	3	3
Mumps	314	65	82	359	108
Pertussis (whooping cough)	18	24	50	13	9
Pneumonia	189	153	99	184	482
Poliomyelitis	3	0	0	0	0
Streptococcal Infections	697	446	301	390	495
Syphilis					
Primary & Secondary	28	29	15	6	2
All Other Syphilis	92	51	101	66	69
Tinea Capitis	21	2	11	18	12
Tuberculosis (Active)	100	65	85	82	90

★

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FUTURE MEETINGS, SEMINARS, COURSES

Third Annual Indiana Child Care Conference Set for April 10-11

The third annual Indiana Child Care Conference sponsored by the Indiana University Department of Pediatrics will be held at Stouffer's Inn in Indianapolis on April 10 and 11. Speakers and their subjects are Doctors Thomas E. Cone, Jr.—New Pediatric Syndromes; Max Cooper—Pediatric Immunologic Disorders; Philip R. Dodge—Head Injury in Children; Louis Gluck—Neonatology; Rosa Hagin—Specific Learning Disabilities; Robert J. Izant, Jr.—Neonatal Surgical Emergencies; John A. Kirkpatrick—Radiology of Pediatric Immunologic Disorders; Dane G. Prugh—Pediatric Psychosomatic Disorders; Robert Schwartz—Carbohydrate Disorders in Children, and Warren E. Wheeler—Pediatric Infectious Disease. Dr. Frederick C. Robbins will be the banquet speaker.

For additional information write: Dr. Morris Green, 1100 W. Michigan St., Indianapolis, Indiana 46207.

32nd Annual Session of the International Medical Assembly

The 32nd annual session of the International Medical Assembly of Southwest Texas will be held in San Antonio January 29, 30 and 31 at the San Antonio new convention center, adjacent to the HemisFair '68.

A faculty of 14 guest speakers will present a well rounded program. Attendance is acceptable for 15 elective hours by the American Academy of General Practice. Write Dr. Arthur C. Ressmann, 202 W. French Place, San Antonio, Texas 78212.

"Advances in Pediatrics" Course Listed for February 28-29

A course on "Recent Advances in Pediatrics" will be conducted at the Cleveland Clinic Educational Foundation on February 28 and 29.

Further information and programs may be obtained by writing Director of Education, The Cleveland Clinic Educational Foundation, 2020 E. 93rd St., Cleveland 44106.

1968 National Health Forum Will be March 15-17 in Los Angeles

The 1968 National Health Forum will be held March 15 to 17, at the Statler-Hilton Hotel in Los Angeles. The objectives of the forum are "To examine current standards, methods and practices for their adequacy, extent of application and acceptance in accomplishing and assuring high quality in health care" and "To consider additional standards, methods and practices that may be needed to strengthen the attainment, assurance and acceptance of high quality care."

Those wishing to participate in the discussions should write to Arthur Jack Grimes, National Health Forum Coordinator, National Health Council, 1740 Broadway, New York City 10019. Dr. Herman Wing of Gary, Indiana, is a member of the Planning Committee.

Abuse of Drugs by Young People Subject of Two-day AMA Conference

The abuse of drugs by young people will be the subject of a two-day physician's conference to be held in Chicago at the Drake Hotel on March 15 and 16 by the AMA.

A highlight of the meeting will be a panel presentation on medical management of those who abuse drugs and become dependent on them. Full information from the Department of Mental Health, AMA, 535 N. Dearborn, Chicago 60610.

New Orleans Graduate Medical Assembly 31st Annual Meeting

The New Orleans Graduate Medical Assembly will hold its 31st annual meeting at the Roosevelt Hotel, New Orleans, on March 4 to 7. The program includes speakers noted for their postgraduate teaching skills and will consist of symposia, round-table luncheons, medical motion pictures and technical exhibits.

The registration fee of $30.00 covers all activities. A one-day pre-assembly symposium is scheduled for Sunday, March 3, on the subject "Problems of Sexuality in Clinical Practice." The regular program is acceptable for 32 elective hours by the American Academy of General Practice. Write the Assembly at 1430 Tulane Ave., New Orleans 70112.

Fifth Annual UCLA Seminar Set for February 28-March 3

"Controversial Areas in Surgery" will be the main topic of discussion during the Fifth Annual UCLA Seminar from February 28 to March 3, at the El Mirador Hotel, Palm Springs, California.

An enrollment fee of $110.00 is charged except in the case of residents, interns and research fellows. For reservation and enrollment blanks write P. O. Box 24901, Dept. K, University of California Extension, Los Angeles 90024.

American Academy of Allergy Two-day Postgraduate Course

The American Academy of Allergy will present a two-day postgraduate course at the Statler Hilton in Boston on February 3 and 4. The subject for Saturday, the 3rd, will be Viruses and Virus Diseases. On Sunday, the 4th, the program will be devoted to Antigens, Antibodies, Inflammation and Autoimmunity.

The annual meeting of the academy will be held on the 5th, 6th and 7th following. For details write the Academy at 756 N. Milwaukee St., Milwaukee, Wisconsin 53202.

Continued

Postgraduate Course in Laryngology, Bronchoesophagology

The Department of Otolaryngology of the Illinois Eye and Ear Infirmary and the College of Medicine of the University of Illinois at the Medical Center will conduct a postgraduate course in "Laryngology and Bronchoesophagology" from March 25 through April 6. This course is limited to 15 physicians and will be under the direction of Paul H. Holinger, M.D.

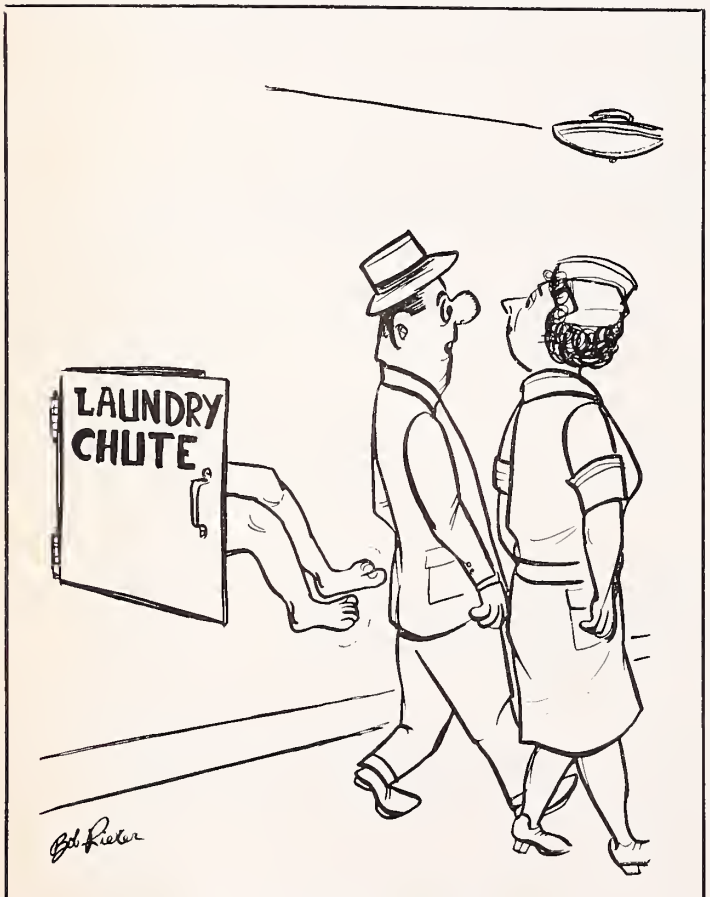
It will be held largely at the new Illinois Eye and Ear Infirmary, 1855 W. Taylor St., Chicago, and will include visits to a number of Chicago hospitals. Instruction will be provided by means of animal demonstrations and practice in bronchoscopy and esophagoscopy, diagnostic and surgical clinics, as well as didactic lectures.

Interested registrants please write directly to the Department of Otolaryngology, College of Medicine, University of Illinois at the Medical Center, P. O. Box 6998, Chicago, Illinois 60680.

"Some New Views in Dermatology" Course Offered February 14

The third annual "Frontiers of Medicine" series will present a course on "Some New Views in Dermatology" February 14 at the University of Chicago Hospitals and Clinics.

Further details on the programs and information on registration may be obtained by writing David M. G. Huntington, Administrative Coordinator, Committee on Continuing Medical Education, the University of Chicago, 950 E. 59th St., Chicago 60637.



As I understand it, the hospital is terribly crowded right now!

7th Annual Alfred K. Nippert Memorial Lecture February 12

The seventh annual Alfred K. Nippert Memorial Lecture will be held at The Christ Hospital, Cincinnati, on the evening of Monday, February 12, and physicians from nearby Indiana communities are cordially invited to attend.

The speaker will be Dr. John H. Knowles, General Director, The Massachusetts General Hospital, Boston, Massachusetts. Dr. Knowles' subject will be "The Emerging Role of the Community Hospital." The lecture will begin at approximately 8:15 p.m.

Postgraduate Course on "Surgery Of the Hand" to be in Colorado

The University of Colorado School of Medicine announces a four-day postgraduate course on "Surgery of the Hand," to be held February 20 through 23, 1968, in Denver. The course will cover specific subjects in the field of trauma of the hand with consideration given to immediate and delayed management of these injuries.

Four eminent guest speakers will participate: Robert E. Carroll, M.D., New York, New York; Raymond M. Curtis, M.D., Baltimore, Maryland; William L. White, M.D., Pittsburgh, Pennsylvania; and James N. Wilson, M.D., Los Angeles, California. Registration and tuition fees are $80.00.

For further information and a detailed program, write to: The Office of Postgraduate Medical Education, University of Colorado School of Medicine, 4200 E. Ninth Ave., Denver, Colorado 80220.

"World Problems in Rehabilitation Of the Disabled" Set for England

The Third International Seminar and Exhibition on the theme "World Problems in Rehabilitation of the Disabled" will be held at the Hotel Metropole, Brighton, England from June 30 to July 6, 1968 under the sponsorship of the British Council for Rehabilitation of the Disabled.

For full details and forms write: The General Secretary, REHAB, Tavistock House (South), Tavistock Square, London, W.C.1, England.

Two-Day Workshop Scheduled by Institute of Medicine of Chicago

The Institute of Medicine of Chicago will conduct a two-day workshop on "The Doctor and His Hospital", at the Pick-Congress Hotel in Chicago on March 7 and 8, 1968. Problems which have arisen as a result of the hospital orientation and hospital concentration of medical practice will be studied.

Panels have been selected on Medical Staff Responsibility for Utilization of Hospital Services, The Hospital as a Teaching and Research Institution, Logistics in the Hospital, Hospital Costs, Nursing in the Hospital, The Hospital and the Community, Alliance of Medicine and Religion in Hospitals, and The Impact of Federal Funding on Hospital Practice. Write the Institute at 332 S. Michigan Ave., Chicago 60604. ◄

County, District News

Boone

Dr. E. M. Helveston, of the Indiana University Medical Center, spoke on "Dyslexia" at the Nov. 7 meeting of the Boone County Medical Society. Fifteen members attended.

Carroll

The November 15 meeting of the Carroll County Medical Society featured a talk by Dr. Henry T. Russell, Lafayette, on "Brain Scans." Field Secretary Howard Grindstaff also spoke briefly on the new centralized billing and other association matters.

Dearborn-Ohio

Dr. Louis Buente, a thoracic surgeon from Cincinnati, spoke at the Nov. 2 meeting of the Dearborn-Ohio County Medical Society. "Use of Cardiac Pacemakers" was his topic.

Elkhart

"Radioactive Isotopes in Diagnosis and Therapy" was the topic chosen by Dr. Fred Mishkin when he spoke at the Nov. 2 meeting of the Elkhart County Medical Society.

Floyd

A film on "Hyperlipemia" highlighted the Nov. 10 meeting of the Floyd County Medical Society. Field Secretary Robert Amick attended the meeting and spoke to the group.

Fulton

New officers of the Fulton County Medical Society are Drs. Joseph D. Richardson, president and F. Richard Walton, secretary-treasurer. Both of the new officers are from Rochester.

Henry

Dr. John E. Fisher is the new president; Dr. Guido P. Wilhelm the new vice president and Dr. Phyllis Grant was re-elected secretary-treasurer of the Henry County Medical Society at elections held Nov. 17.

Koscuisko

The 1968 officers of the Kosciusko County Medical Society are: Drs. Wymond B. Wilson, Mentone, president; William C. Parke, Warsaw, vice president and Arthur L. Moser, Warsaw, secretary-treasurer.

Miami

"Hyaline Membrane Disease" was the subject of Dr. James Tate, a pediatrician from Kokomo, when he spoke at the Nov. 14 meeting of the Miami County Medical Society.

Parke-Vermillion

A film on "Cancer of the Thyroid" highlighted the Nov. 15 meeting of the Parke-Vermillion County Medical Society.

Tippecanoe

Dr. L. H. Wagner is the new president of the Tippecanoe County Medical Society. Assisting him will be Dr. Hugh Steele, vice president and Dr. Chester L. Waits, secretary-treasurer. All of the new officers are from Lafayette.

Vanderburgh

Mr. Edwin J. Holman, of the AMA legal department, spoke at the Nov. 14 meeting of the Vanderburgh County Medical Society. His topic was "Doctors, Lawyers and the Community." ◄

MUST (Medical Unit Self-contained Transportable)

The opening of the 45th Surgical Hospital at Tay Ninh, Vietnam, last November brought a new concept in medical care to the battlefield. The 60-bed hospital, which may be expanded to 100 beds, was the first in Vietnam to use MUST equipment.

MUST consists of three basic elements. The expandable element is used as an operating room, supply center or laboratory. An inflatable rubber shelter makes up the hospital ward element and the utility unit provides electrical power, air conditioning, heating, hot and cold running water and waste water service. The elements of the MUST hospital are easily transportable by truck, helicopter or cargo aircraft. They can be assembled in minutes, providing a controlled, contamination-free environment for optimum patient treatment regardless of the geographical area.

Association News

EXECUTIVE COMMITTEE

November 18, 1967

Present: Ralph V. Everly, M.D., chairman; Burton E. Kintner, M.D.; G. O. Larson, M.D.; Patrick J. V. Corcoran, M.D.; Lowell H. Steen, M.D.; Malcolm O. Scamahorn, M.D.

Frank B. Rasmey, M.D., editor of *The Journal*, Robert E. Robinson, attorney, James A. Waggener, executive secretary.

Guest: Glenn W. Irwin, Jr., M.D., dean, I.U. School of Medicine.

Membership Report

Number of members as of December 31, 1966		4,409
1967 members as of October 31, 1967:		
Full dues paying	3,877	
Residents and interns	115	
Council remitted	54	
Senior	308	
Honorary	3	
Military	49	
Total 1967 members as of October 31, 1967		4,406
Number of members as of October 31, 1966		4,391
Gain over last year		15
Number of AMA members as of October 31, 1967		4,231
Total 1966 AMA members as of October 31, 1966		4,276
Loss over last year		45
1967 AMA members:		
Dues paying	3,703	
Exempt, but active	528	
		4,231
Number who have paid state dues but not AMA dues as of October 31, 1967		175

Dr. Irwin then appeared before the committee and discussed the operation of the intern program and made a progress report on the implementation of the so-called "Indiana Plan."

Headquarters Office

The secretary asked for guidance concerning those counties not going on direct billing, if a separate statement and receipt form should be prepared for their use, or whether the same forms from the computerized system could be used. He also asked for a clarification as to whether or not the physicians in those counties not going on computerized billing should be instructed to write one check for the total amount to the local county society secretary, from which the county society secretary would deduct the county dues and send the remainder to the state association, or whether the physician should be instructed to write two checks, one to the county society, to be mailed to the secretary of the local society, the other check for the balance of his dues, to be mailed to the office of the Indiana State Medical Association.

Following discussion, on motion of Dr. Steen, taken by consent, it was decided that the same form being used for the computerized billing should also be used for those counties not participating, and in those counties not desiring to participate in direct billing the physician should be instructed to write one check, made payable to the county society, and the county society will forward the funds due to district, state, AMA and IMPAC to the Indiana State Medical Association.

On motion of Drs. Steen and Larson, the contract with the Service Bureau Corporation for computerized billing was approved for signature of the treasurer.

Treasurer's Office

In the absence of the treasurer, the committee reviewed the statements for the month of October and the cash fund balances, which were approved on motion of Drs. Larson and Steen.

The annual audit by George S. Olive & Company was distributed and by consent it was agreed that action on this would be deferred until the next meeting of the committee.

The secretary reported that the lock box at the Indiana National Bank was no longer used as the association's securities are now in the Safekeeping Department of the bank. On motion of Drs. Steen and Corcoran, the secretary was instructed to discontinue rental of the lock box.

Organization Matters

The secretary read a letter from the American Medical Association addressed to Dr. Henry T. Russell, Lafayette, answering questions that he raised concerning action taken by the House of Delegates of the Indiana State Medical Association at the 1967 annual convention.

The request of The Indiana Association of Church Related and Independent Colleges for use of the mailing list for distribution of a pamphlet was approved on motion of Drs. Steen and Larson.

On motion of Drs. Steen and Larson, the request of the State Board of Health for the association to mail samples of the new birth and death certificates to all physicians with a note from the president calling attention that these new forms would be used beginning January 1, 1968, was approved.

The request of the president of the Woman's Auxiliary for permission for the auxiliary to work for the development of a Health Careers Week was approved on motion of Drs. Larson and Steen.

Minutes of the joint meeting of the Indiana Roentgen Society and the ISMA Section on Radiology were reviewed for the information of the committee.

A newspaper clipping concerning the action of Dr. Thomas G. Cummiskey of Indianapolis as being responsible for saving the lives of two Illinois doctors was reviewed and the secretary was instructed to write a letter to Dr. Cummiskey, noting his heroic action and complimenting him.

The secretary called attention to the opening of a Profession Acceptance Corporation in Indiana, which is designed to purchase the delinquent accounts of physicians. This was taken as a matter of information.

A report from the Better Business Bureau calling attention to comments made at the recent conference on "The Elderly as Consumers", held at Indiana University, was reviewed for the information of the committee.

On motion of Drs. Larson and Kintner, the copy of the memorandum from Community Hospital of Indianapolis concerning the expanding of the use of physicians engaged in operating the Emergency Department to permit them to assist in surgery and perform insurance examinations was referred to the Council for consideration at its January meeting.

A memorandum from the State Board of Health concerning the recommendation of individuals to represent the association on the Advisory Council on the comprehensive health program was reviewed and by consent the committee will recommend Dr. Donald E. Wood, Dr. Eugene S. Rifner and Dr. Donald L. Rogers.

A letter from the Medical Foundation of Cincinnati was reviewed for the information of the committee.

Renewal of membership in the Indiana State Chamber of Commerce was approved on motion of Drs. Steen and Larson.

Renewal of sustaining membership in the Student American Medical Association was approved on motion of Drs. Steen and Larson.

Dr. Glock's proposal that the association use a postmark plate announcing the convention at Fort Wayne was approved on motion of Drs. Larson and Corcoran.

A letter from Dr. Wallace D. Buchanan calling attention to the action of the Board of Trustees of the Indiana Hospital Association was read for the information of the committee.

A letter from the American Medical Association, acknowledging receipt of recommendations of the Association of Indiana Physicians for appointment to various AMA councils and committees, was read

for the information of the committee.

A letter from the American Medical Association quoting a resolution adopted by the American Legion's national convention was read for the information of the committee.

A letter from the Indiana Neuropsychiatric Association making certain recommendations was reviewed and on motion of Dr. Larson, taken by consent, this was to be referred to the Council at its January meeting.

Actions of the House of Delegates, referred to the Executive Committee and the officers, were reviewed for the information of the committee.

The proposed format for the orientation course was reviewed and on motion of Drs. Steen and Larson, this is to be referred to the Council sub-committee whose responsibility it is to work out the orientation program.

A letter from the Methodist Hospital of Indianapolis concerning a symposium to be held December 12 and 13, 1967, was reviewed for the information of the committee.

An exchange of correspondence between a Mrs. Houser and Dr. Lloyd L. Hill, Peru, was reviewed and by consent this matter is to be referred to the Commission on Public Health.

Legislation

A bulletin from the American Psychiatric Association was reviewed and upon motion of Drs. Steen and Larson, this is to be referred to the Council at its January meeting.

A copy of a release concerning the action of the American Academy of Pediatrics cooperating with the Office of Economic Opportunity was reviewed for the information of the committee.

A letter from Dr. Roland E. Miller, chairman of the ISMA Section on Pediatrics, concerning comprehensive health planning was taken as a matter of information.

The AMA policy on therapeutic abortion was presented and the secretary announced that this information had been sent to the members of the Executive Committee and the Council.

Letter from the American Academy of Physical Medicine and Rehabilitation was reviewed for the information of the committee.

Memorandum from Dr. Frank Land concerning revising the statement known as D-5150 was reviewed for the information of the committee.

The published speech of the president of the Indiana Pharmaceutical Association was reviewed for the information of the committee.

A letter from the American Medical Association, addressed to the St. Joseph County Medical Society, concerning the $85,000 federal grant to the Health Care Foundation for Northern Indiana, Inc. was reviewed for the information of the committee.

The committee discussed the Texas Plan of implementation of Title XIX and this matter is to be referred to the Commission on Legislation.

A letter from the American Medical Association concerning "Appraising Mechanisms for Utilization Review" was reviewed and this is to be referred to the Commission on Legislation, on motion of Drs. Corcoran and Larson.

The announcement for a Wisconsin Regional Medical Program was reviewed for the information of the committee.

The Corson report was also reviewed for the information of the committee.

1968 Annual Convention

Exchange of correspondence between the state office and the Fort Wayne Medical Society was reviewed for the information of the committee.

The committee decided that the Fort Wayne convention would be operated on Tuesday, Wednesday, Thursday and Friday, October 15, 16, 17 and 18, 1968, with the House of Delegates meeting on Tuesday and the final meeting of the House on Friday.

The matter of entertainment was discussed. At the suggestion of the president, the question of whether or not a president's luncheon or a president's dinner is held, is to be decided by the Commission on Convention Arrangements, but he would prefer a musical program for the entertainment program.

Insurance Matters

A letter from The Stratford House, Wabash, registering a complaint on Blue Shield, was reviewed and on motion of Dr. Larson, taken by consent, this is to be referred to the Council.

An exchange of correspondence between Indiana Blue Shield and Dr. K. O. Neumann was reviewed and ordered referred to the Council Liaison Committee with Blue Shield. It was later pointed out that this had already been done.

An item appearing in the News Letter of the Louisiana State Medical Society announcing that the Pennsylvania Superior Court had upheld the use of individual responsibility reporting forms for filing claims for third party carriers was called to the attention of the committee.

A copy of a letter addressed to Mutual Medical Insurance by a Vigo county physician was reviewed and this is to be referred to the Council Liaison Committee with Blue Shield with the recommendation that it should also investigate why a physician who is still active is denied coverage under Blue Shield after attaining age 65. This action was taken on motion of Drs. Steen and Larson.

A copy of a letter of complaint from Dr. Eli Goodman, addressed to a Hartford Insurance Group, was reviewed and the matter taken as information.

The Journal

A letter concerning an increase in the cost of clipping service was reviewed and on motion of Drs. Larson and Steen, the contract was authorized to be renewed at the increased rate.

Requests of the Indiana College of Business and Technology for advertising space in *The Journal* was reviewed and upon motion of Drs. Kintner and Steen, *The Journal* is to obtain additional information on this institution and report at the next meeting of the committee.

A letter addressed to *The Journal* by *Northwest Medicine* was received for information and no action was taken.

A letter from the United States Postoffice concerning delayed delivery of *The Journal*, stating they could find no reason for delay, was read for the information of the committee.

AMA Houston Meeting

Resolutions to be presented in the AMA House of Delegates at Houston were reviewed and in addition to those approved for submission, the following resolutions were proposed for presentation to the Council and for submission at the Houston meeting:

A resolution on Separation of Food and Drug Administration from HEW.

A resolution concerning "Usual, Customary and Reasonable" fees.

A resolution calling for the AMA to take legislative action to exempt physicians from the Interstate Commerce Act.

These resolutions were approved on motion of Drs. Corcoran and Larson.

A resolution proposed by the North Central Medical Conference concerning the action taken by the National Association of Blue Shield Plans at the Florida meeting, in which they would permit the operation of a Blue Shield Plan without approval of the state medical association was reviewed and it was felt that the association should support this resolution.

A letter from the Ohio State Medical Association announcing the candidacy of Dr. Carl A. Lincke for the office of vice president of the American Medical

Association was reviewed and referred to the Council upon motion of Drs. Larson and Steen.

A letter from Dr. Hugh Ramsey was reviewed for the information of the committee.

New Business

The secretary asked for the opinion of the committee as to whether or not he should investigate the purchase of an automatic envelope addresser and permission was granted for this investigation.

Future Meetings

Announcements of the American Medical Association Conference on Utilization Review, to be held in Houston, November 25, 1967, and of the AMA Conference on Medical Aspects of Sports, also to be held in Houston on November 26 and 27, 1967, were reviewed for the information of the committee.

An invitation to send two representatives to the AMA National Conference on Health Care for the Poor, to be held in Chicago, December 15-16, 1967, was reviewed and it was agreed that Drs. Larson and Steen would represent the association at this meeting.

National Conference on Community and Emergency Health Services, San Francisco, January 18-20, 1968. By consent Dr. Lowell J. Hillis is to be requested to represent the association at this meeting.

Meeting of AMA Committee on Medical Aspects of Automotive Safety, Louisville, Kentucky, January 27, 1968. Dr. Thomas O. Middleton is to be requested to represent the association at this meeting.

On motion of Drs. Corcoran and Steen, the secretary was authorized to attend the Professional Convention Management Association meeting in New Orleans, January 2-5, 1968.

"The Doctor and His Hospital" Workshop, sponsored by the Institute of Medicine of Chicago, Pick-Congress Hotel, Chicago, March 7-8, 1968. No representative will be sent to this meeting.

Meeting announcement of the 1968 National Health Forum, Los Angeles, March 15-17, 1968, was taken as a matter of information.

AMA Second National Congress on Socio-Economics of Health Care, Chicago, March 22-23, 1968. Dr. Steen was authorized to represent the association at this meeting.

21st National Conference on Rural Health, Seattle, March 29-30, 1968. No representative will be sent.

There being no further business the committee adjourned, to meet again in Houston with the AMA delegates at 8:00 a.m., Sunday, November 26, 1967. ◄

AMA Pamphlets Available

What is the American Medical Association? How does it operate? What are some of its major areas of activities and accomplishments?

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* * * * *

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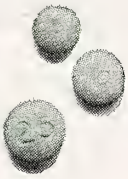

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Indianapolis, Indiana February, 1968 Vol. 61 • No. 2

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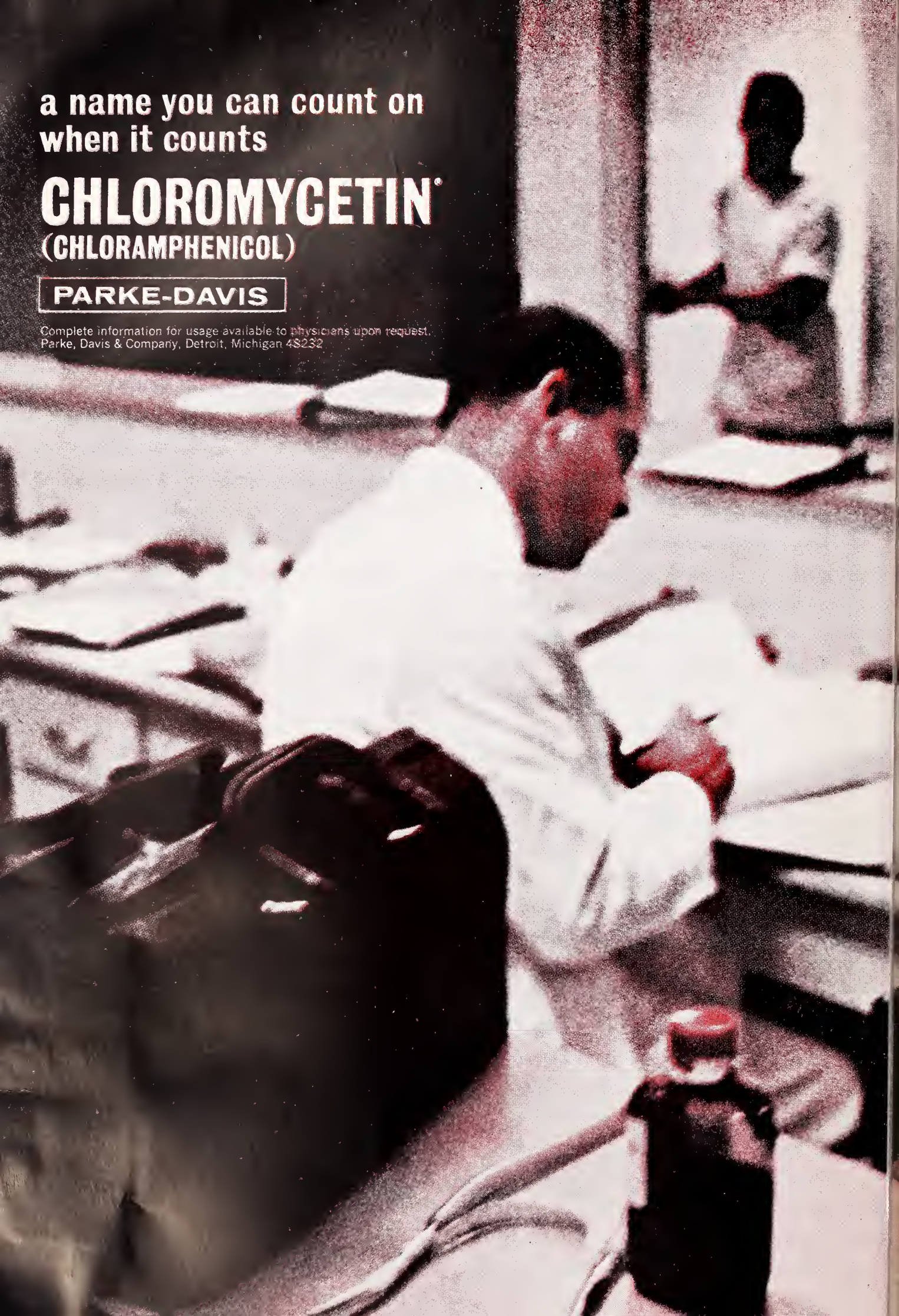

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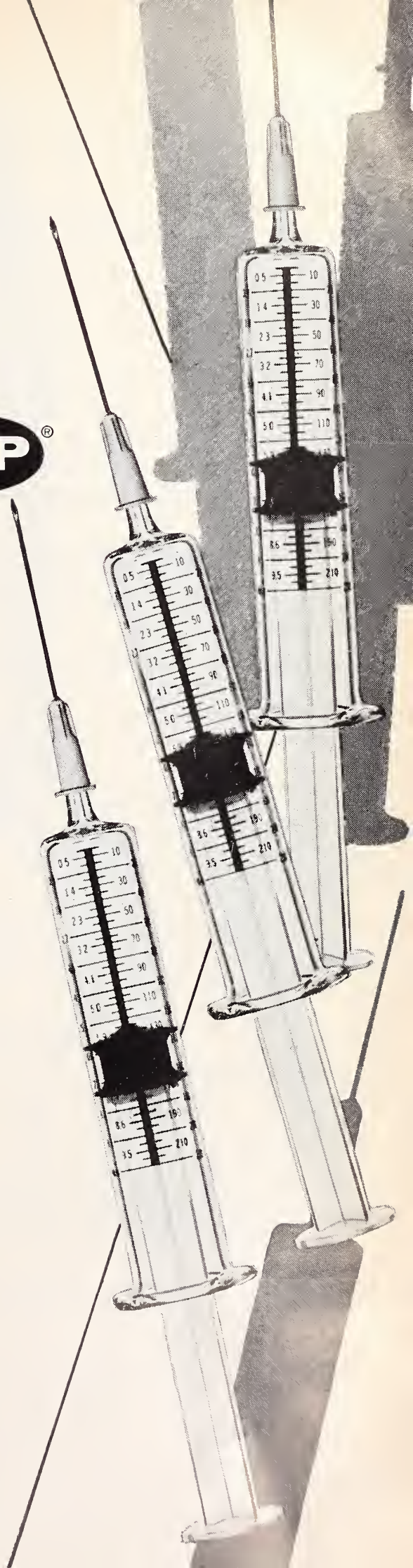

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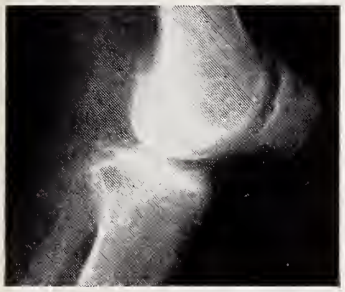
Contraindications: Edema; danger of cardiac decompensation; history or symptoms of peptic ulcer; renal, hepatic or cardiac damage; history of drug allergy; history of blood dyscrasia. The drug should not be given when the patient is senile or when other potent drugs are given concurrently.
Warning: Tandearil is an analog of phenylbutazone; sensitive patients may be cross-reactive. If coumarin-type anticoagulants are given simultaneously, watch for excessive increase in prothrombin time. Instances of severe bleeding have occurred. Pyrazole compounds may potentiate the pharmacologic action of sulfonylurea, sulfonamide-type agents and insulin. Carefully observe patients receiving such therapy. Use with great caution in the first trimester of pregnancy.
Precautions: Before prescribing, carefully select patients, avoiding those responsive to routine measures as well as contraindicated patients. Obtain a detailed history and a complete physical and laboratory examination, including a blood count. The patient should not exceed recommended dosage, should be closely supervised and should be warned to discontinue the drug and report immediately if fever, sore throat, or mouth lesions (symptoms of blood dyscrasia); sudden weight gain (water retention); skin reactions; black or tarry stools or other evidence of intestinal hemorrhage occur. Make regular blood counts. Discontinue the drug immediately and institute countermeasures if the white count changes significantly, granulocytes decrease, or immature forms appear. Use greater care in the elderly and in hypertensives.
Adverse Reactions: The most common are nausea, edema and drug rash. Swelling of the ankles or face may be minimized by with-

"Pain Break" for an osteoarthritic. Tandearil can ease it.

At 46, her knees still look good on the outside. But inside, there may be the familiar picture of osteoarthritis.



If aspirin doesn't help, Tandearil often will. Pain and stiffness begin to ease up in 3 or 4 days. You can often maintain response with a daily dose of only 1 or 2 tablets.

Of course, Tandearil is not for every osteoarthritic. Select your patients carefully and follow them in line with the Contraindications, Precautions, Warning, and Adverse Reactions listed below.

But for many aspirin-stubborn osteoarthritics, let Tandearil ease the unwelcome pain breaks of osteoarthritis.

Tandearil®
oxyphenbutazone

holding dietary salt, reduction in dosage or use of diuretics. In elderly patients and in those with hypertension the drug should be discontinued with the appearance of edema. The drug has been associated with peptic ulcer and may reactivate a latent peptic ulcer. The patient should be instructed to take doses immediately after meals or with milk to minimize gastric upset. Mild drug rashes frequently subside with reduction of dosage. However, rash accompanied by fever or other systemic reactions usually requires withholding medication. Purpuric rash has also been reported. Agranulocytosis or a generalized allergic reaction similar to a serum sickness syndrome may occur and require permanent withdrawal of medication. Stomatitis, salivary gland enlargement, vomiting, vertigo and languor may occur. Leukemia and leukemoid reactions have been reported. While not definitely attributable to the drug, a causal relationship cannot be excluded. Thrombocytopenic purpura and aplastic anemia may occur. Confusional states, agitation, headache, blurred vision, optic neuritis and transient hearing loss have been reported, as have hyperglycemia, hepatitis, jaundice, and several cases of anuria and hematuria. With long-term use, reversible thyroid hyperplasia may occur infrequently. Moderate lowering of the red cell count due to hemodilution may occur.

Dosage in Osteoarthritis: Initial: 3 to 6 tablets daily in divided doses. It is usually unnecessary to exceed 4 tablets daily. A trial period of 1 week is adequate to determine response; in the absence of a favorable response, discontinue. Maintenance: An effective level is often achieved with 1 or 2 tablets daily, do not exceed 4 daily. 6562-VI(B)R2

For complete details, please see full prescribing information.

Geigy

Geigy Pharmaceuticals
Division of Geigy Chemical Corporation
Ardsley, New York

TA-5806

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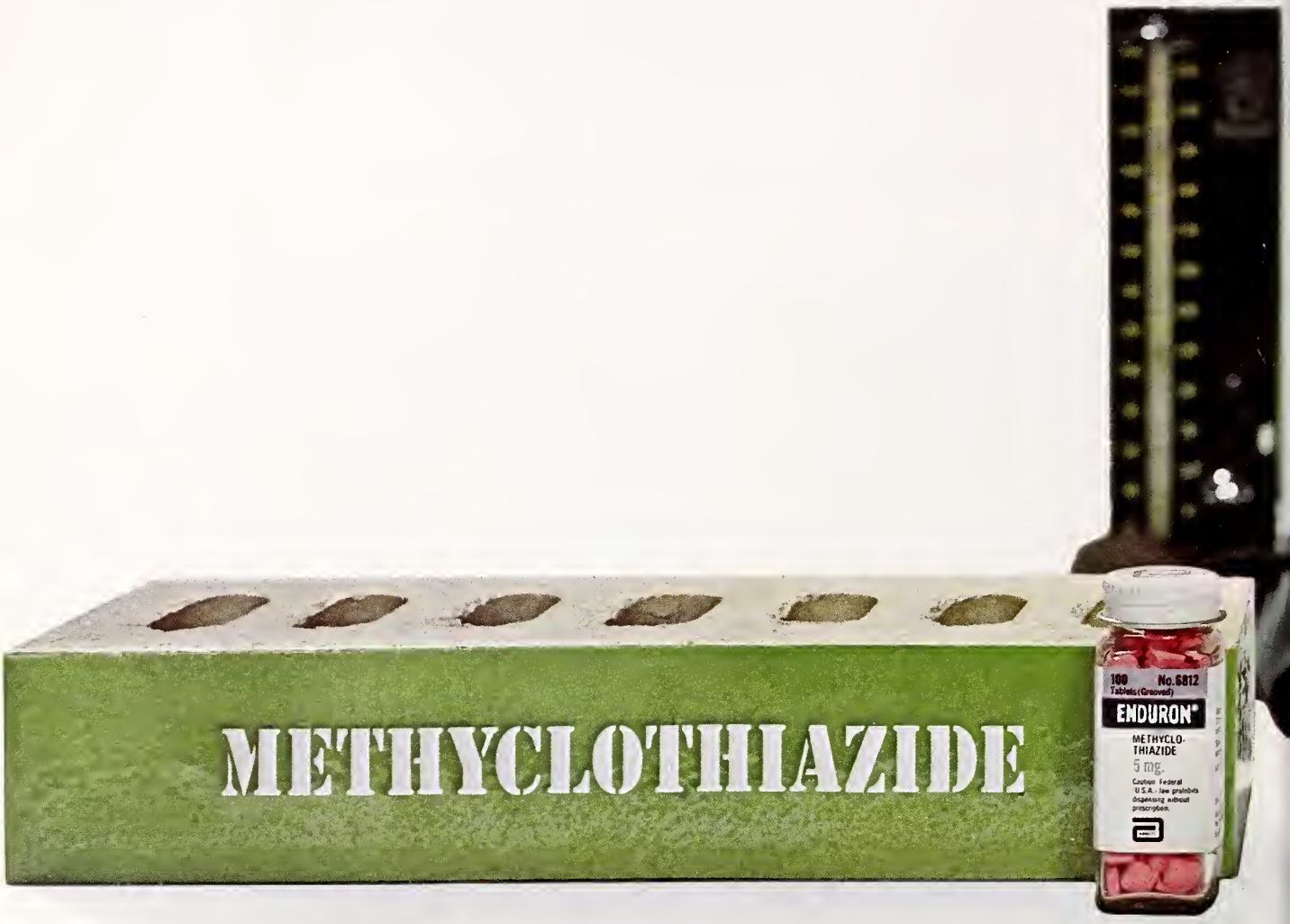
Abbott Antihypertensive Building Blocks

A simplified approach to the practical management of hypertension

Enduron: (methyclothiazide) A basic building block for mild hypertensives



Excellent day-long Na^+ output, yet easy on the K^+

Enduron provides an excellent starting therapy. Your patient's sodium excretion is greatly enhanced. Yet potassium loss is low.

The therapeutic action is smooth, and persits for a full 24 hours. With Enduron you can prescribe convenient once-a-day dosage without skimping your patients on day-long thiazide effectiveness.

Of course, as with all thiazides, supplemental dietary potassium should also be considered.

Use Enduron as a basic therapy in patients with mild to moderate hypertension. A single 5-mg. tablet each day is ample in most cases.

Once a day, every day

ENDURON®

METHYCLOTHIAZIDE

MILD TO MODERATE TO SEVERE

See Brief Summary on final page of advertisement

Enduronyl: Its deserpidine component adds response in moderate hypertension

Less frequent rauwolfia side effects than with reserpine

When you wish to build further response, consider shifting to Enduronyl.

Enduronyl adds a building block of *deserpidine*. This is a purified rauwolfia alkaloid available only from Abbott. It adds good antihypertensive and tranquilizing activity. Yet its incidence of untoward effects, particularly lethargy and depression, is lower than with reserpine.

Enduronyl is available plain or Forte. The latter provides its variation where most helpful, by doubling the deserpidine.

Use Enduronyl for patients throughout the broad range of mild to moderately severe hypertension.

Once a day, every day

ENDURONYL®

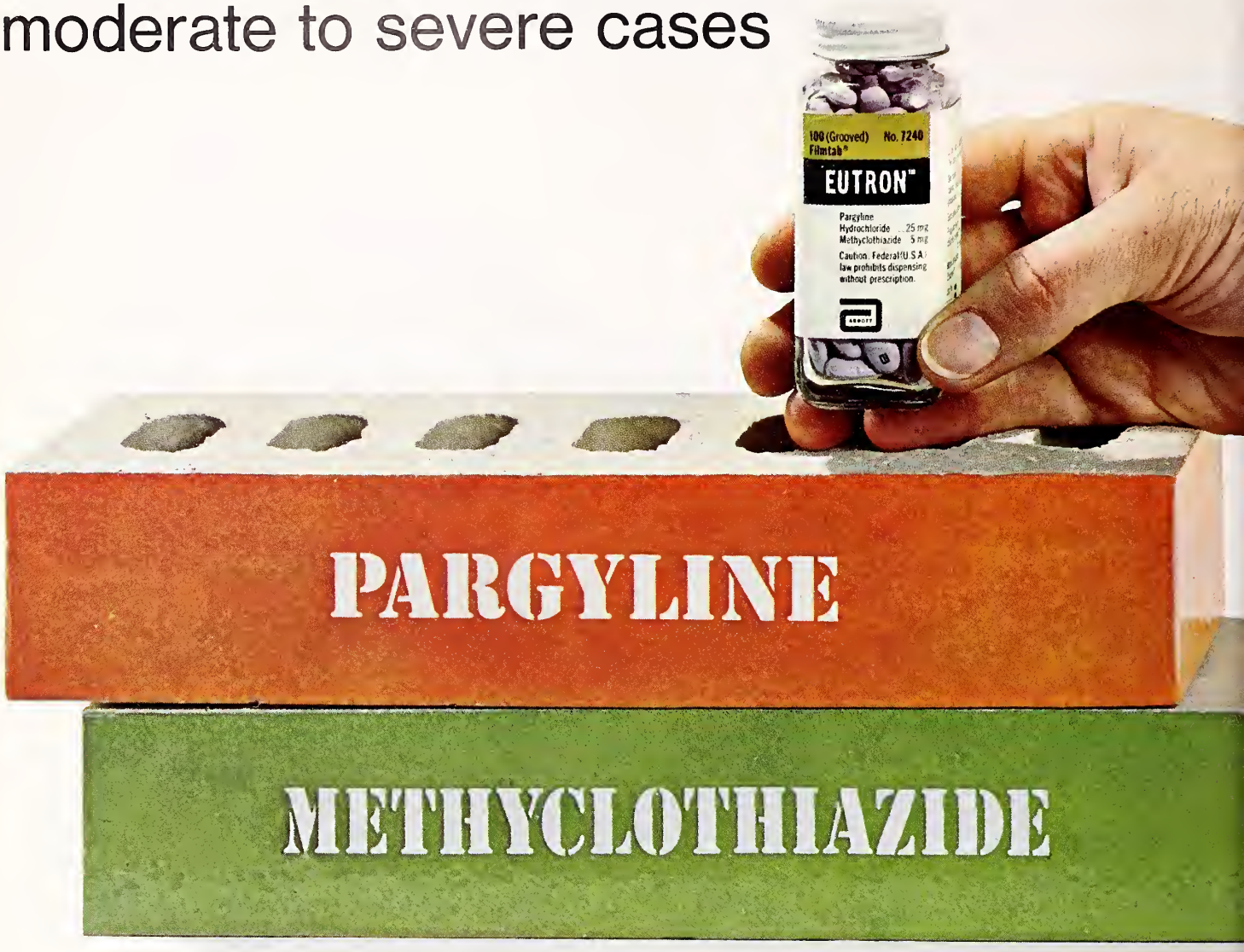
METHYCLOTHIAZIDE 5 mg. with DESERPIDINE 0.25 mg. or (FORTE) 0.5 mg.

MILD TO MODERATE TO SEVERE

See Brief Summary on final page of advertisement

801094

Eutron: A unique combination for handling moderate to severe cases



Affords almost uniform diastolic reduction in all body positions

Eutron lowers diastolic pressures nearly equally, whether your patient is standing up or lying down.

Thus, in clinical trials, average *standing* diastolic readings were reduced from 112 pre-treatment to 90 post-treatment; *sitting* from 115 to 95; and *recumbent* from 112 to 94.

Note that following Eutron, the diastolic reductions were nearly alike in all three body positions.

Use Eutron for managing your moderate to severe cases. Its building blocks enhance each other; hence lesser doses often suffice.

Once a day, every day

EUTRON™

PARGYLINE HYDROCHLORIDE 25 mg.
with METHYCLOTHIAZIDE 5 mg.

MILD TO MODERATE TO SEVERE

See Brief Summary on final page of advertisement

801094

ENDURON® | ENDURONYL®

METHYCLOTHIAZIDE

Each tablet contains
Methyclothiazide 5 mg. with
Deserpidine 0.25 mg. or 0.5 mg

Indications: Edema and mild to moderate hypertension (Enduron), and mild to moderately severe hypertension (Enduronyl). More potent agents, if added, can be given at reduced dosage.

Contraindications: Sensitivity to thiazides; severe renal disease (except nephrosis) or shutdown; severe hepatic disease or impending hepatic coma (hepatic coma due to hypokalemia has been reported in patients on thiazides). Do not use Enduronyl in severe mental depression, suicidal tendencies, active peptic ulcer, or ulcerative colitis.

Warnings: Consider possible sensitivity where there is history of allergy or asthma. If added potassium is indicated, dietary supplementation is recommended. Reserve enteric-coated potassium tablets for cautious use only when necessary, as they may induce serious or fatal small bowel lesions (stenosis with or without ulceration), cause obstruction, hemorrhage, and perforation often requiring surgery; discontinue them immediately if abdominal pain, distention, nausea, vomiting, or g.i. bleeding occurs. Neither Enduron nor Enduronyl contains added potassium.

Precautions: Use thiazides cautiously in severe renal dysfunction, impaired hepatic function or progressive liver disease; also in pregnancy (bone marrow depression, thrombocytopenia, and altered carbohydrate metabolism have been reported in certain newborn). In surgery, thiazides may reduce response to vasopressors, and increase response to tubocurarine. Antihypertensive response may be enhanced following sympathectomy. Watch for electrolyte imbalance (e.g., hyponatremia) in all patients. In hypokalemia (especially in digitalized patients) give supplemental potassium. In hypochloremic alkalosis, give supplemental chloride.

Use rauwolfias with caution in patients with history of peptic ulcer. Rauwolfias with anesthetics may produce hypotension and bradycardia. Discontinue Enduronyl two weeks before elective surgery. Consider vagal blocking agents during emergency surgery. In epilepsy, adjust anticonvulsant dosage. In electroshock, shorten stimulus strength and duration. In occasional patients with depressive tendencies, rauwolfias may precipitate severe mental depression that usually disappears when drug is stopped.

Adverse Reactions: Thiazide reaction include blood dyscrasias (thrombocytopenia with purpura, agranulocytosis, aplastic anemia); elevation of BUN, serum uric acid or blood sugar; anorexia, nausea, vomiting, diarrhea, headache, dizziness, paresthesia, weakness, skin rash, photosensitivity, jaundice, symtomatic gout, and pancreatitis. Cutaneous vasculitis in the elderly has been reported with other thiazides. Adverse effects with deserpidine are qualitatively similar to those with reserpine, but their incidence is lower. These include nasal stuffiness, abdominal cramps or diarrhea, nausea, headache, weight gain, reduced libido and potency, peptic ulcer aggravation, epistaxis, skin eruption, asthma in susceptible patients, electrolyte imbalance, excessive salivation, and a reversible Parkinson's syndrome. Excessive drowsiness, fatigue, weakness, and nightmares may signal mental depression. Thrombocytopenia, purpura, and a symptom manifested by dull sensorium, deafness, uveitis, glaucoma, and optic atrophy are rare allergic reactions to other rauwolfias. Hypotension from antihypertensive agents may precipitate angina attacks in susceptible individuals. Usually adverse reactions disappear when drug is withdrawn.

EUTRON™

Each tablet contains
Pargyline Hydrochloride 25 mg.
with Methyclothiazide 5 mg.

Indications: For treatment of patients with moderate to severe hypertension, especially those with severe diastolic hypertension. Not recommended for patients with mild or labile hypertension amendable to therapy with sedatives and/or thiazide diuretics alone. It is desirable to establish the dosage of Eutron by administering component drugs separately.

TM-TRADEMARK

Contraindications: Pheochromocytoma, advanced renal disease, increasing renal dysfunction, paranoid schizophrenia and hyperthyroidism. Hepatic coma has been reported as consequence of hypokalemia with thiazide therapy. Until further experience is gained not recommended for patients with malignant hypertension, children under 12, or pregnant patients.

Concomitant use of the following is contraindicated: other monoamine oxidase inhibitors; parenteral forms of reserpine or guanethidine; sympathomimetic drugs; foods high in tyramine such as cheese; imipramine and amitriptyline, or similar antidepressants; methyldopa. 2 week interval should separate therapy and use of these agents.

Methyclothiazide is contraindicated in patients with known sensitivity to thiazides.

Warnings: Pargyline hydrochloride is a monoamine oxidase inhibitor. Warn patients against eating cheese, and using alcohol, proprietary drugs or other medication without the knowledge of the physician. When indicated, alcohol, narcotics (meperidine should be avoided), antihistamines, barbiturates, chloral hydrate, and other hypnotics, sedatives, tranquilizers, or caffeine, may be used cautiously in reduced dosage. In emergency surgery ¼ to ⅕ the usual dose of narcotics, analgesics, and other premedications should be used avoiding parenteral administration where possible. Carefully adjust dose of anesthetics to response of patient. Withdraw pargyline two weeks before elective surgery.

Warn patients about the possibility of postural hypotension. Those with angina or coronary artery disease should not increase physical activity with an improvement in well being. Pargyline may lower blood sugar.

Avoid use of enteric-coated potassium tablets, as these may induce serious or fatal small-bowel lesions consisting of stenosis with or without ulceration. These small-bowel lesions have caused obstruction, hemorrhage and perforation frequently requiring surgery. Medication should be discontinued immediately if abdominal pain, distension, nausea, vomiting or GI bleeding occurs. These products contain no added potassium salts and if added potassium intake is desired, dietary supplementation is recommended. Coated potassium tablets should be reserved for cautious use when adequate dietary supplementation is impractical. In patients with a history of allergy or asthma the possibility of sensitivity reactions should be considered.

Precautions: Measure blood pressure while patient is standing to determine antihypertensive effect. Use with caution in hyperactive or hyperexcitable persons. Such persons may show increased restlessness and agitation. Withdraw drug during acute febrile illness. Watch patients with impaired renal function for increasing drug effects or elevation of BUN and other evidence of progressive renal failure; withdraw drug if such alterations persist and progress. Use with caution in patients with liver disease. As with all new drugs, complete blood counts, urinalyses, and liver function tests should be performed periodically. With prolonged therapy, examine patients for change in color perception, visual fields and fundi. Also reported have been: blood dyscrasias including thrombocytopenia with purpura, agranulocytosis and aplastic anemia; elevations of BUN, serum uric acid, or blood sugar. Symptomatic gout may be induced. In surgical patients thiazides may reduce response to vasopressors and increase response to tubocurarine.

Adverse Reactions: Pargyline may be associated with orthostatic hypotension. Mild constipation, slight edema, dry mouth, sweating, increased appetite, arthralgia, nausea and vomiting, headache, insomnia, difficulty in micturition, nightmares, impotence, delayed ejaculation, rash, and purpura have been encountered with pargyline. Hyperexcitability, increased neuromuscular activity (muscle twitching) and other extrapyramidal symptoms have been reported in a few patients with reduced cardiac reserve.

During intensive or prolonged therapy, guard against hypochloremic alkalosis and hypokalemia (especially the latter if patient is on digitalis). Observe all patients for signs of hyponatremia ("low salt" syndrome).

Reported thiazide reactions also include anorexia, nausea, vomiting, diarrhea, headache, dizziness, paresthesia, weakness, skin rash, photosensitivity, jaundice, and pancreatitis. Nocturia has been observed with the combination.

801438

ABBOTT

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1967-68 DISTRICT MEDICAL SOCIETY OFFICERS

District	President	Secretary	Place and date of meeting
1.	R. E. Weitzel, Princeton	James L. Hobgood, Evansville	
2.		J. S. Brown, Carlisle	June 6, 1968, Washington
3.	Daniel H. Cannon, New Albany	Elmer L. Wallace, New Albany	
4.	Frank B. Bard, Crothersville	Harold E. Miller, Seymour	
5.	Thomas J. Conway, Terre Haute	Arnold W. Kunkler, Terre Haute	Terre Haute
6.	Paul Inlow, Shelbyville	Perry Seal, Brookville	
7.	Jay Reese, Martinsville	James H. Gosman, Indianapolis	Franklin
8.	Donald E. Spahr, Portland	Joseph F. Vormohr, Portland	
9.	Nolan Hibner, Monticello	Max Fields, Monticello	May 16, 1968, Monticello
10.	John J. Reed, Hobart	Raymond Doherty, Crown Point	
11.	Charles Wise, Camden	Fred Poehler, La Fontaine	Carroll County, host
12.	Max M. Gitlin, Bluffton	Berniece Williams, Fort Wayne	May 15, 1968, Angola
13.	E. C. Mueller, LaPorte	John Hildebrand, South Bend	

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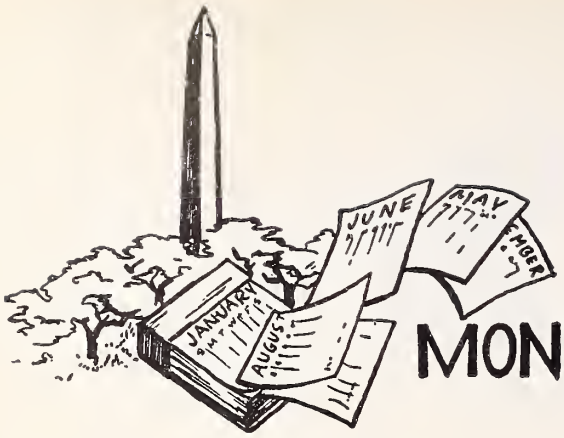


This summary of what is happening in Washington is prepared by AMA's Capitol office and air-mailed to *The Journal* on the ninth of each month preceding month of issue.

MONTH IN WASHINGTON

WASHINGTON, D.C.—President Johnson signed into law the social security legislation which included changes in medicare and medicaid advocated by the medical profession.

IT PROVIDES for a record high minimum 13% increase in cash benefits for 24 million Americans, starting in March. Beginning April 1, one dollar a month of the increase will be withheld from the checks of those participating in voluntary Plan B of medicare which covers part of physician fees and other medical services other than hospitalization.

THE TOTAL PREMIUM for Plan B insurance is now $6 a month, half of which is paid by the federal government. Beginning April 1, the premium will be increased to $8, with the government paying $4 and the participant $4.

ACCORDING TO HEW, about 20 cents of the $1 increase was needed to cover costs which were originally underestimated. Another 25 cents would cover expected increase of use under the program. An anticipated five percent increase in physician fees would account for another 25 cents, HEW said.

THE SOCIAL SECURITY taxable base also was increased, effective January 1, from $6,600 to $7,800. The tax rate for this year will remain the same as under the old law, 4.4% on both the employee and employer and 6.4% on self employed. Tax rate increases are set for subsequent years through 1987.

CHANGES in medicare and medicaid include:

MEDICARE

—PAYMENT of physician fees is authorized either to the patient on the basis of an itemized bill, either unpaid or receipted as paid, or to the physician under the assignment method.

—PAYMENT IS authorized for full reasonable charges for radiological or services furnished by physicians to hospital inpatients.

—HOSPITAL OUTPATIENT diagnostic services are transferred from the hospital insurance program (Plan A) to the supplementary medical insurance program (Plan B). The change was designed to simplify the procedure for paying benefits for hospital outpatients.

—THE REQUIREMENT of physician certification of the medical necessity for admission to general hospitals and for hospital outpatient services was eliminated.

Continued

Photo professionally posed.

No injection after all!

This penicillin produces high, fast levels—orally.

Pen•Vee® K is usually so rapidly and completely absorbed that therapeutic penicillin levels are attained within 15 to 30 minutes. Thus it can often obviate the need for penicillin injections. The higher serum levels produced generally last longer than with those of oral penicillin G.

Indications: Infections susceptible to oral penicillin G: prophylaxis and treatment of streptococcal infections; treatment of pneumococcal, gonococcal, and susceptible staphylococcal infections; prophylaxis of rheumatic fever in patients with a previous history of the disease.
Contraindications: Infections caused by nonsusceptible organisms; history of penicillin sensitivity.
Warnings: Acute anaphylaxis (may prove fatal unless promptly controlled) is rare but more frequent in patients with previous penicillin sensitivity, bronchial asthma or other allergies. Resuscitative (epinephrine, aminophylline, pressor amines) and supportive (antihistamines, methylprednisolone sodium succinate) drugs should be readily available. Other rare hypersensitivity reactions include nephropathy, hemolytic anemia, leucopenia and thrombocytopenia. In suspected hypersensitivity, evaluation of renal and hematopoietic systems is recommended.
Precautions: In suspected staphylococcal infections, perform proper laboratory studies including sensitivity tests. If overgrowth of nonsusceptible organisms occurs (constant observation is essential), discontinue penicillin and take appropriate measures. Whenever allergic reactions occur, withdraw penicillin unless condition being treated is considered life threatening and amenable only to penicillin. Penicillin may delay or prevent appearance of primary syphilitic lesions. Gonorrhea patients suspected of concurrent syphilis should be tested serologically for at least 3 months. When lesions of primary syphilis are suspected, dark-field examination should precede use of penicillin. Treat beta-hemolytic streptococcal infections with full therapeutic dosage for at least 10 days to prevent rheumatic fever or glomerulonephritis. In staphylococcal infections, perform surgery as indicated.
Adverse Reactions: (Penicillin has significant index of sensitization): Skin rashes, ranging from maculopapular eruptions to exfoliative dermatitis; urticaria; serum sickness-like reactions, including chills, fever, edema, arthralgia and prostration. Severe and often fatal anaphylaxis has been reported (see "Warnings").
Composition: Tablets—125 mg. (200,000 units), 250 mg. (400,000 units), 500 mg. (800,000 units); Liquid—125 mg. (200,000 units) and 250 mg. (400,000 units) per 5 cc.

Wyeth Laboratories Philadelphia, Pa.

ORAL **PEN•VEE® K**

(potassium phenoxymethyl penicillin) Wyeth®

Continued

—MEDICARE beneficiaries are given a lifetime reserve of 60 additional days of hospital care after the 90 days covered in a spell of illness. The beneficiary must pay the first $20 per day for the additional hospitalization.

—THE SECRETARY OF HEW was directed to study and report to Congress by January 1, 1969, the effects of covering drugs under medicare and of establishing quality and cost standards for drugs provided under social security health programs.

—SERVICES of podiatrists are authorized under medicare to the extent that a state's law permits, but routine foot care is not covered.

—OUTPATIENT SERVICES furnished by physical therapists are authorized within certain limitations.

—THE SECRETARY OF HEW was directed to study and make recommendations of adding services of chiropractic and optometrists to Plan B.

—PAYMENT IS authorized under Plan B for diagnostic x-rays taken in a patient's home or a nursing home.

MEDICAID

—STATES ARE limited in setting eligibility income levels for federal matching purposes.

—STATES ARE GIVEN until January 1, 1970, to buy-in medicare Plan B insurance for aged medicaid beneficiaries.

—STATES ARE authorized to make direct payments to medicaid beneficiaries for physicians' and dentists' services if the beneficiary is not receiving cash assistance.

—STATES ARE permitted to select either the five basic health services, or seven out of the 14 authorized, for the medically indigent. The basic five must be provided for those receiving welfare cash benefits. The basic five are: inpatient hospital services, outpatient hospital services, other laboratory and x-ray services, skilled nursing home services and physicians' services.

—STATES MUST LICENSE administrators of nursing homes and set minimum nursing home standards if these institutions are to be eligible to participate in the medicaid program.

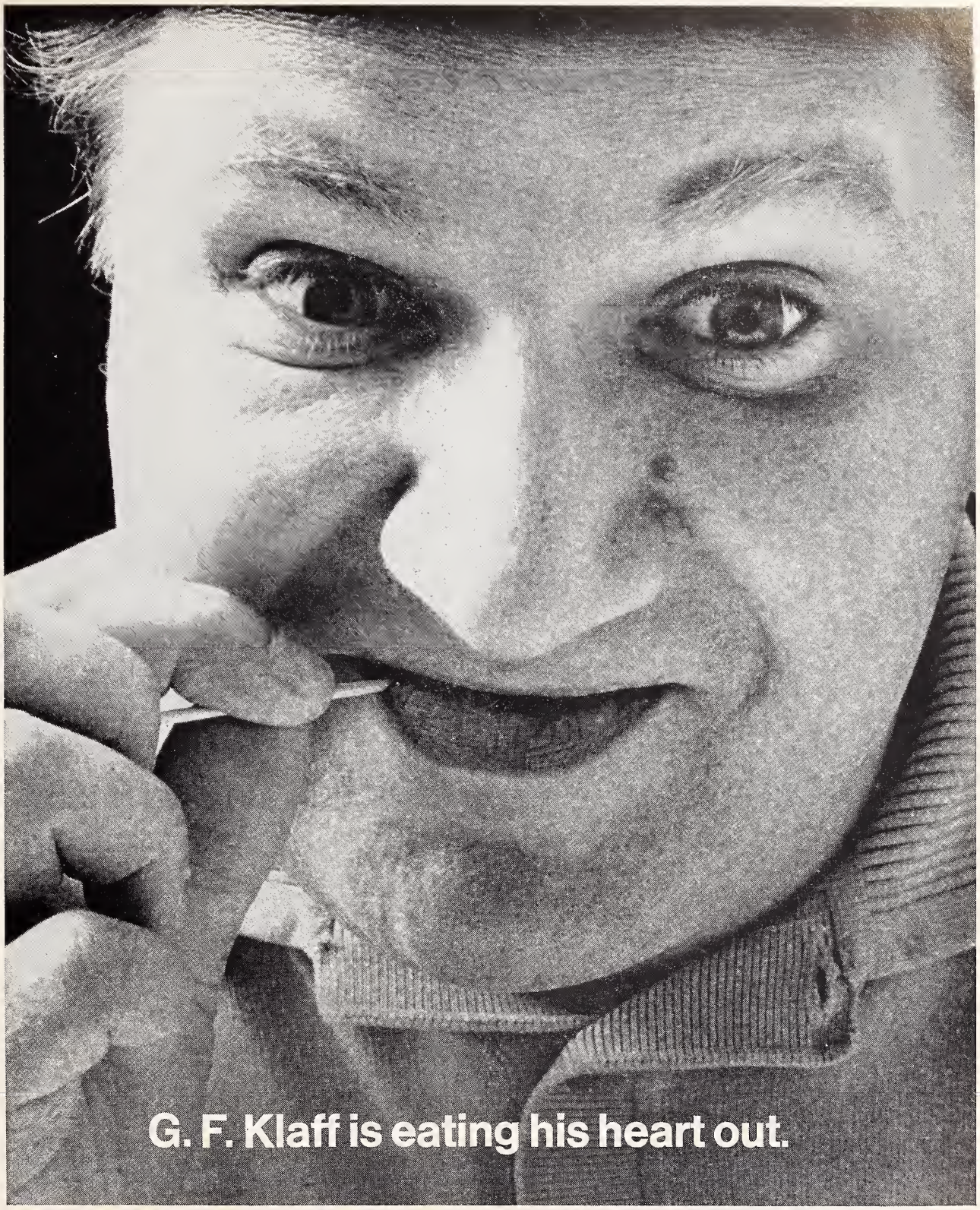
—STATES MUST ESTABLISH methods and procedures to safeguard against unnecessary utilization of health care services and to assure that payments for such services and drugs do not exceed reasonable charges.

UNDER THE program for Aid to Families with Dependent Children (AFDC), states now must offer birth control services to appropriate beneficiaries with acceptance on a voluntary basis. Authorizations for federal financial aid for maternal and child health programs are increased. Services of optometrists are added to child health programs.

300 DRUGS MAY BE FORCED OFF MARKET

DR. JAMES L. GODDARD, commissioner of the Food and Drug Administration, estimated that about 300 drugs, marketed under 1,600 brand names, will be forced off the market because of ineffectiveness for treatment of medical conditions.

Continued



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AN EVALUATION of some 3,000 drugs placed on the market from 1938 to 1962 was started in June, 1966. It is being conducted by 29 panels of 200 medical and pharmaceutical specialists under the direction of the National Academy of Sciences-National Research Council. With the first panel reporting in January, the last report is due in mid-1969.

THE FDA assigned the evaluation to the academy following passage of the Kefauver Drug Law in 1962. The law's main thrust was to give FDA power to pass on the efficacy as well as the safety of drugs marketed after 1962, but a provision authorized the government to review drugs already on the market.

MUMPS VIRUS VACCINE LICENSED

THE FEDERAL GOVERNMENT has licensed a live, attenuated mumps virus vaccine especially recommended for adolescent and male adults who can become sterile from the relatively innocuous childhood disease.

THE VACCINE, developed over a five-year period by the Merck, Sharp and Dohme Research Laboratories, was not recommended for routine use in infants and young children pending development of more information in the duration of the immunity it provides.

DR. WILLIAM H. STEWART, U.S. Surgeon General, said excellent protection against naturally occurring mumps has been observed for the first year after the single-infection live vaccine.

"BUT LIMITED DATA on natural exposure during the second year indicate continuing protection although additional observation will be required to determine the duration of immunity protection," he said. ◄

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Help clear up that miserable stuffed-up feeling with Dimetapp. Each hard-working Extentab brings welcome relief from the stuffiness, drip and congestion of upper respiratory conditions for up to 10-12 hours. Yet, patients seldom experience drowsiness or overstimulation. The key to success is the Dimetapp formula: Dimetane (brompheniramine maleate)—along with phenylephrine and phenylpropanolamine, two time-tested decongestants. They get the job done . . . in a hurry.

Indications: Dimetapp is indicated for symptomatic relief of the allergic manifestations of respiratory illnesses, such as the common cold and bronchial asthma, seasonal allergies, sinusitis, rhinitis, conjunctivitis, and otitis.
Contraindications: Hypersensitivity to antihistamines. Not recommended for use during pregnancy.
Precautions: Until patient's response has been determined, he should be cautioned against engaging in operations requiring alertness. Administer with care to patients with cardiac or peripheral vascular diseases or hypertension.
Side Effects: Hypersensitivity reactions including skin rashes, urticaria, hypotension and thrombocytopenia, have been reported on rare occasions. Drowsiness, lassitude, nausea, giddiness, dryness of the mouth, mydriasis, increased irritability or excitement may be encountered.
Dosage: 1 Extentab morning and evening.
Supplied: Bottles of 100 and 500.

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in sinusitis, colds, U.R.I.
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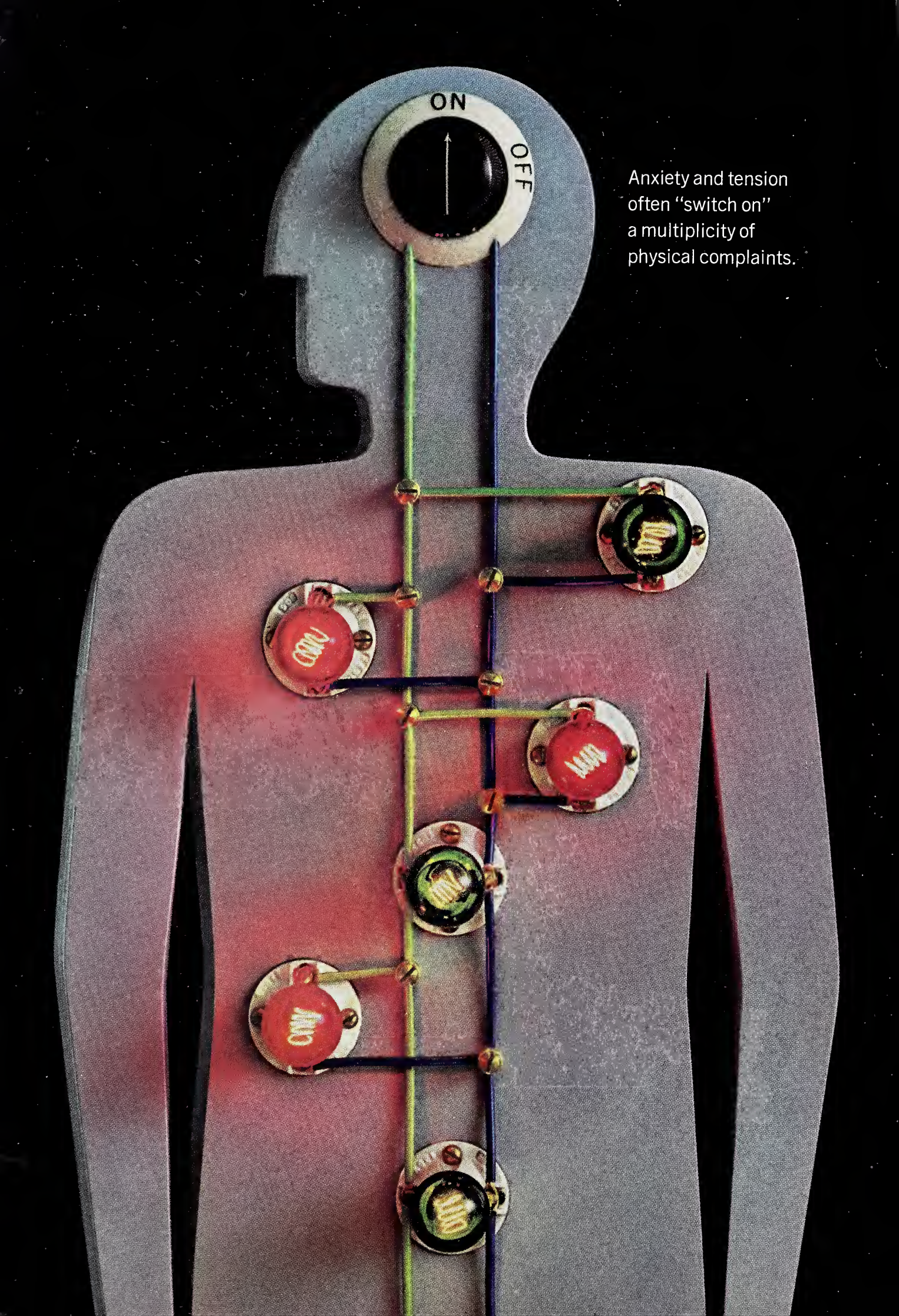

Anxiety and tension often "switch on" a multiplicity of physical complaints.

a tranquilizer with particular usefulness in functional disorders

Tybatran™

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brand of tybamate

Extensive clinical experience, including eleven double-blind studies,[1-11] indicates that Tybatran is an effective agent for the relief of anxiety and tension. It appears to lend itself particularly well to the management of the anxious patient who "somatizes"—whose anxiety and tension find expression in complaints such as headaches,[4,8,10,11] fatigue,[4] insomnia,[2,4,8,9,12] anorexia,[3,8,9] and pruritus.[7]

Two salient features seem to set Tybatran somewhat apart from certain other commonly used tranquilizers.

1. Tybatran often proves more effective than meprobamate and chlordiazepoxide. In one study,[4] severe anxiety responded more effectively to tybamate than to meprobamate; in another,[8] symptom-response superiority of tybamate over chlordiazepoxide was marked at statistically significant levels of confidence.

2. Tybatran appears to be less sedating than other widely used tranquilizers. Side reactions are relatively infrequent; when they do occur, they may take the form of drowsiness, although insomnia, ataxia and other adverse effects have been reported. Nevertheless, Tybatran impresses many clinicians by its comparative lack of undesirable sedative action.[3,6,12,13] (If drowsiness or vertigo is present, activities requiring optimal alertness should be avoided.)

For patients in whom anxiety is manifested in any of a multiplicity of physical complaints, Tybatran deserves a clinical trial. These are the challenging patients, those with recurrent, persistent, ever-changing symptoms for which there is no clinical or laboratory evidence of organic disease.

Usual adult dose: one or two 250 mg. capsules 3 or 4 times daily. Adjust to suit individual requirements.

A·H·ROBINS

Prescribing Information

Dosage and administration. The suggested adult dose of Tybatran (tybamate) is one or two 250 mg. capsules three or four times daily. Dosage should be adjusted to suit individual requirements. While clinical experience with Tybatran (tybamate) in children has been very limited to date, the recommended daily dosage for children 6 to 12 years old is 20 to 35 mg./kg. body weight, in three or four equally divided doses. Dosage should be adjusted to suit individual requirements. Until further clinical experience is obtained, administration of Tybatran (tybamate) to children under 6 years of age is not recommended. Daily doses larger than 3000 mg. are not recommended, although in a few instances doses in excess of this figure have been administered. Tybatran (tybamate) is also available in 350 mg. capsules, for convenience in dosage adjustment, e.g., one capsule three times daily and two at bedtime.

Contraindications. Tybatran (tybamate) should not be administered to patients known to be hypersensitive to the drug. Since no studies have been done with this drug in human pregnancy, it should not be used in pregnancy unless the potential benefit outweighs the risk.

Warnings. Simultaneous administration to psychotic patients of tybamate with phenothiazines and other central nervous system depressants has in a few instances been associated with the occurrence of grand mal or petit mal seizures. Seizures have been reported with administration of phenothiazines alone, but not with administration of tybamate alone; nevertheless, tybamate should be used cautiously in individuals who are receiving other central nervous system depressants or have a history of convulsive seizures. Also, it should be borne in mind that simultaneous administration of tybamate with alcohol or with other psychotropic agents, particularly phenothiazines or monoamine oxidase inhibitors, which are known to potentiate the action of other drugs, may result in additive actions.

Precautions. There has been no evidence to date of the development of habituation or addiction. Investigators have not observed excessive self-medication or any withdrawal symptoms with use of Tybatran (tybamate), but the latter should be kept in mind with cessation of the drug after prolonged use. Because of the occurrence of

Prescribing information continued on next page.

(pronounced TYE-buh-tran)

Tybatran™

brand of tybamate

a tranquilizer with particular usefulness in functional disorders

Prescribing information continued from preceding page.

withdrawal symptoms or exacerbation of presenting symptoms upon rapid withdrawal of other agents of this type, abrupt withdrawal of Tybatran (tybamate) should be avoided. Tybamate, like other psychotherapeutic agents, should be used with caution in addiction-prone individuals. Should symptoms of hypersensitivity occur, administration should be discontinued at once and appropriate symptomatic treatment initiated. Operation of motor vehicles or machinery or other activities requiring optimal mental alertness should be avoided if drowsiness or vertigo is present. As with any new drug, Tybatran (tybamate), should be used with caution in patients with a history of drug allergies, blood dyscrasias, and hepatic or renal disease; and prolonged and/or high doses of tybamate should be accompanied by periodic measurements of hepatic, hematopoietic, and renal function.

Adverse reactions. While these have only rarely required discontinuation of the drug, the most frequently encountered reactions have included drowsiness, dizziness, nausea, insomnia, euphoria. The drug was discontinued in one child because of a possible drug-induced urticaria, and skin rash and pruritus have been encountered in a few other patients. In a few patients, effects suggesting excessive stimulation such as hyperactivity, fidgetiness, flushing, and tachycardia have been encountered. Other reported side effects recorded only a few times to date have included ataxia, unsteadiness, confusion, feeling of unreality, "panic reaction," fatigue, headache, paresthesias, vertigo, gastrointestinal disturbances, glossitis and dry mouth. Grand mal or petit mal seizures have been reported in a few hospitalized psychotic patients to whom tybamate (up to 6000 mg. daily), phenothiazines, and other psychotropic agents were administered simultaneously. Convulsive seizures have not been reported with the use of tybamate alone.

Until clinical experience has accumulated with this drug, inasmuch as tybamate is related to meprobamate, the physician should be cautious about the possibility of rare, serious adverse reactions such as may be encountered with the latter drug. Should excessive doses of tybamate be ingested, it is recommended that any drug remaining in the stomach be removed and symptomatic therapy, including central stimulants, be used as necessary.

Supply. Tybatran (tybamate) is available in green, sealed capsules of three strengths: 350 mg., 250 mg., and 125 mg. Each strength is supplied in bottles of 100 and 500.

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What's New?

Synalar-HP Cream, a high potency topical corticosteroid, is being introduced by Syntex. It contains 0.2% fluocinolone acetonide and has been shown to be an effective anti-inflammatory agent in dermatoses refractory to therapy with presently available topical corticosteroids. Some dermatoses that previously required systemic steroids have been responsive to Synalar-HP Cream. It is to be supplied in 5 gm. tubes.

* * *

"The Health Consequences of Smoking—A Public Health Service Review: 1967" was recently published by the Public Health Service. It is a paperbound 199-page book which reproduces the most recent report of Secretary John W. Gardner to Congress, and technical reports on the relationship of smoking to cardiovascular, chronic bronchopulmonary disease, cancer and other conditions, as compiled by more than 70 scientists. It is available at 60 cents per copy from the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402.

* * *

Thorazine, in all its dosage forms, has been reduced in price by the makers, Smith Kline & French. Reductions are announced as being in the 5% to 15% range, depending on the form and strength. Reduced prices will be effective at the retail level at an early date because of reimbursement of pharmacists on the basis of their inventories.

* * *

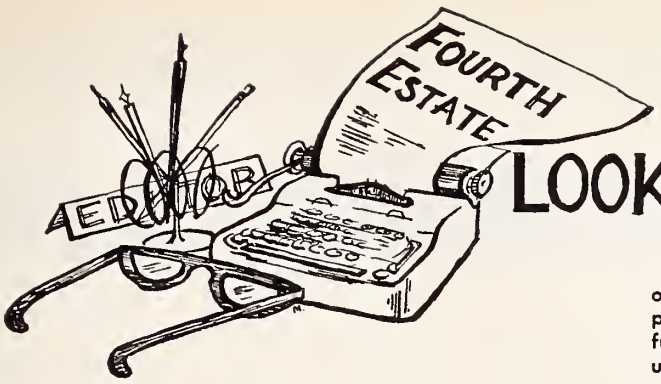
New see-through plastic containers, available from Professional Disposable Products, are designed for one-time-use and provide accurate and aseptic handling of specimens. The six-ounce, odor-proof cup has graduations etched on the side for measurements in ounces and cubic centimeters. A snap-in "lok-tite" lid makes the container leak-proof. A built-in pouring spout makes them applicable for many other uses.

* * *

"The Ageless Woman: Menopause, Hormones and Quest for Youth", a book of 191 pages, written by Sherwin A. Kaufman, M.D., has been published by Prentice-Hall. Dr. Kaufman is a prominent New York gynecologist. The book is addressed to women and is a discussion of the controversial issues of menopause, hormones, etc. It is written to dispel myths and misunderstandings, and answers questions most women ask concerning hormones.

* * *

News of what is new in the medical supply industry is composed of abstracts from news releases by manufacturers—of pharmaceuticals, clinical laboratory supplies, instruments, and surgical appliances and book publishers. Each item is published as news and does not necessarily constitute an indorsement of a product or recommendation for its use by THE JOURNAL or by the Indiana State Medical Association.



LOOKS AT MEDICINE

This section of THE JOURNAL is devoted to the presentation of opinions which appear on the editorial pages of the public press, and which are of interest to the medical profession. Its function is to review comments which may be favorable or unfavorable to medicine. Members are invited to submit editorial clippings for this column.

New Cancer Hope

Anyone at all acquainted with the course of cancer research has long since learned to guard undue optimism. Dramatic breakthroughs are rare. Advances come a little at a time as the result of stubborn, often agonizingly slow progress.

This does not rule out occasional moments of excitement. One such came when Dr. Robert J. Huebner raised the possibility that most human cancer may be caused by viruses, and thus be subject to eventual control. The head of viral research at the National Institute of Allergy and Infectious Diseases noted that at best, years of work on this surmise lie ahead. But it appears to open up a promising new avenue toward that shining goal, the conquest of this terrible disease.—*Terre Haute Tribune,* Oct. 26, 1967.

Going Up, Up, Up!

Speaking of inflation, have you noticed yet what's in store for social security "premiums"?

Under legislation shaping up in Congress, passed by the House and revised by the Senate Finance Committee, huge hikes in Social Security taxes are being planned.

Where Social Security taxes now total $580 a year maximum per individual, $290 from the employe and $290 paid in his behalf by his employer, hikes to $626 each, or a total of $1,253 per year per individual are planned.

It's $352 each or $704 for 1968, $422 each for $844 for 1969, $457 each for $914 in 1971, $457 each for $914 for 1972, $610 each for $1,220 for 1973, $615 each for $1,231 for 1976, and $626 each for $1,253 for 1980.

That's as far as the lawmakers have forecast the hikes. But of course the rates will be changed several more times before 1980 if past trends are followed. And these changes will be even more sharply upward.

Of course, benefits also are going up under the plan: Where maximum individual benefits have been something like $2,016 a year, these will rise to something like $2,956—a hike of about $940 a year at retirement at 65.

These benefits too can change in the years ahead. Thus far, the benefits have been increasing; but there's no assurance that they will continue to do so, even if the rates do keep climbing.

There is no real insurance factor to Social Security, therefore the tax is a tax and not really a premium buying proportionate amounts of security. The benefits are arbitrarily assigned by Congress and can be and are altered without regard to the amount paid in by the retiree.

The funds paid in for Social Security are not held for eventual payout to retirees, either; but are spent by the government for current expenses with the intention of raising necessary pension funds out of current tax revenues when they fall due.

So, although you may, one day, be paying out $626 a year in Social Security tax and having an additional $626 paid for you by your employer for a total input of $1,253 a year, you won't be assured what you're buying.

But think what $1,253 a year in premiums would buy in private insurance plans providing both for survivors and retirement! And you'd know then just what you had coming.

This becomes pretty important when you're talking about "premiums" of $1,253 a year.—*Lafayette Journal and Courier,* Nov. 14, 1967.

Mission To Vietnam

Huntington County will have a civilian mission to Vietnam when Dr. J. B. Bennett spends a voluntary civilian medical service tour there early next year. It is easily understood why the Warren physician volunteered after hearing the great need from a professional colleague who had served a period in the war ravaged country. Dr. Bennett also may be influenced by the circumstance he has a son with the armed services in Vietnam. There are perhaps many fathers who would welcome the opportunity of serving where a son is serving.

More than personal motives, however, are involved in the feeling of fellow-Americans who are happy to be represented by civilians who want to go and who can contribute worthwhile and needed services when there. One cannot take the time from

Continued

Sustained circulatory, respiratory and cerebral stimulation for the

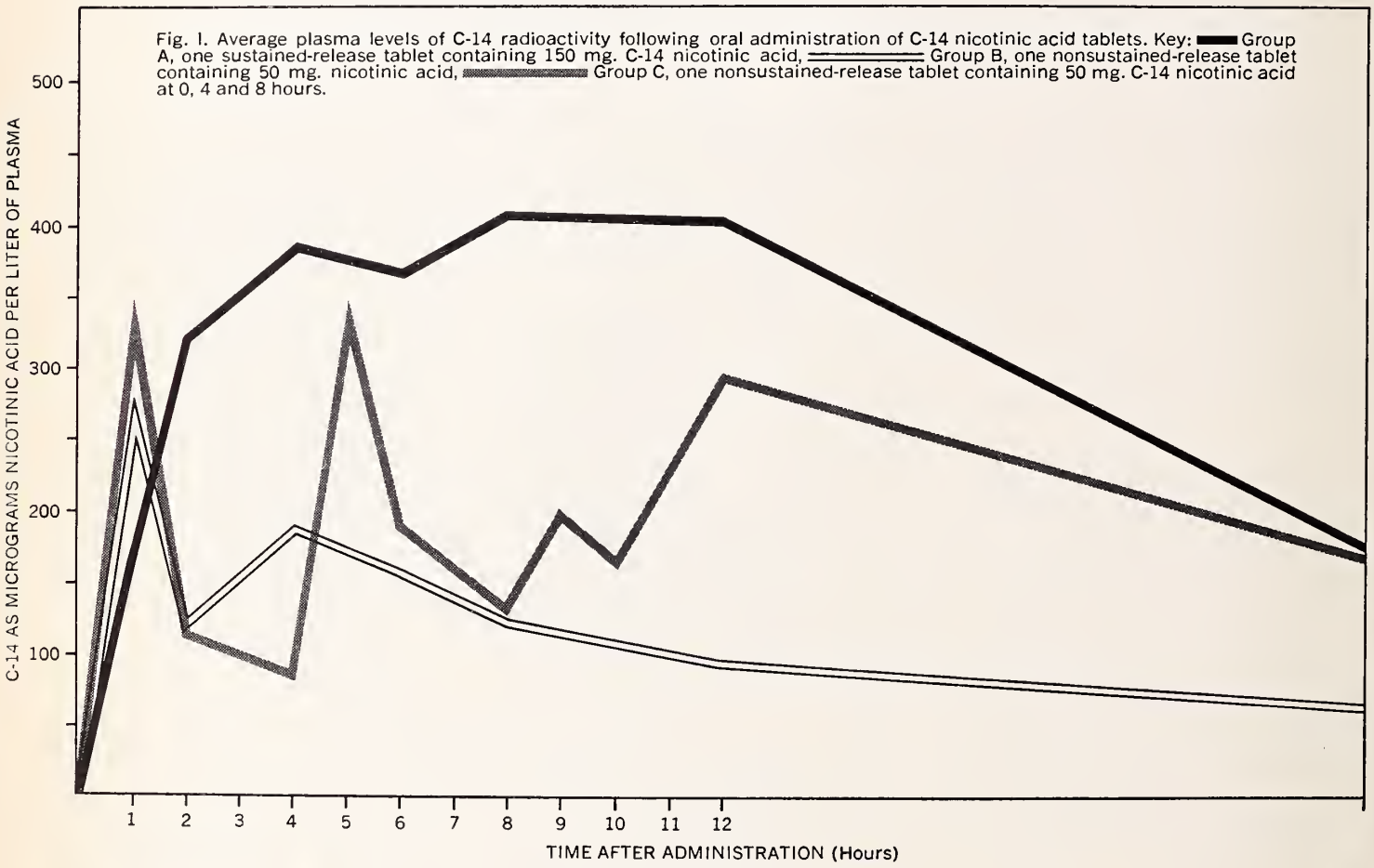


Fig. I. Average plasma levels of C-14 radioactivity following oral administration of C-14 nicotinic acid tablets. Key: ▬ Group A, one sustained-release tablet containing 150 mg. C-14 nicotinic acid, ═══ Group B, one nonsustained-release tablet containing 50 mg. nicotinic acid, ▒▒▒ Group C, one nonsustained-release tablet containing 50 mg. C-14 nicotinic acid at 0, 4 and 8 hours.

(fewer absent doses by absent-minded patients)

Human volunteer subjects were administered Geroniazol TT tablets with the nicotinic acid component made radioactive with C-14. Plasma and urine samples were analyzed. (See Figures I and II) The radioactive tracer study substantiated the previous clinical evidence that the release of nicotinic acid from the Geroniazol TT tablet produced a gradual rise in plasma levels to a plateau for a total of 12 hours and more.

Such proven sustained activity makes the management of geriatric patients much easier by minimizing the possibility of neglected doses through absent-mindedness or senile confusion. Therapy *can* be continuous on a daily dose of only one Geroniazol TT tablet every 12 hours.

The gradual release of nicotinic acid in Geroniazol TT will provide the well-known peripheral vasodilatation needed in patients with deficient circulation and with a minimum amount (if any) of "flushing." Also, cerebrovascular circulation is complemented by pentylenetetrazol, long-established as a cerebral and respiratory stimulant.

Geroniazol TT improves the typical, unfortunate, signs of senile confusion. Patients become more alert,

ged and debilitated

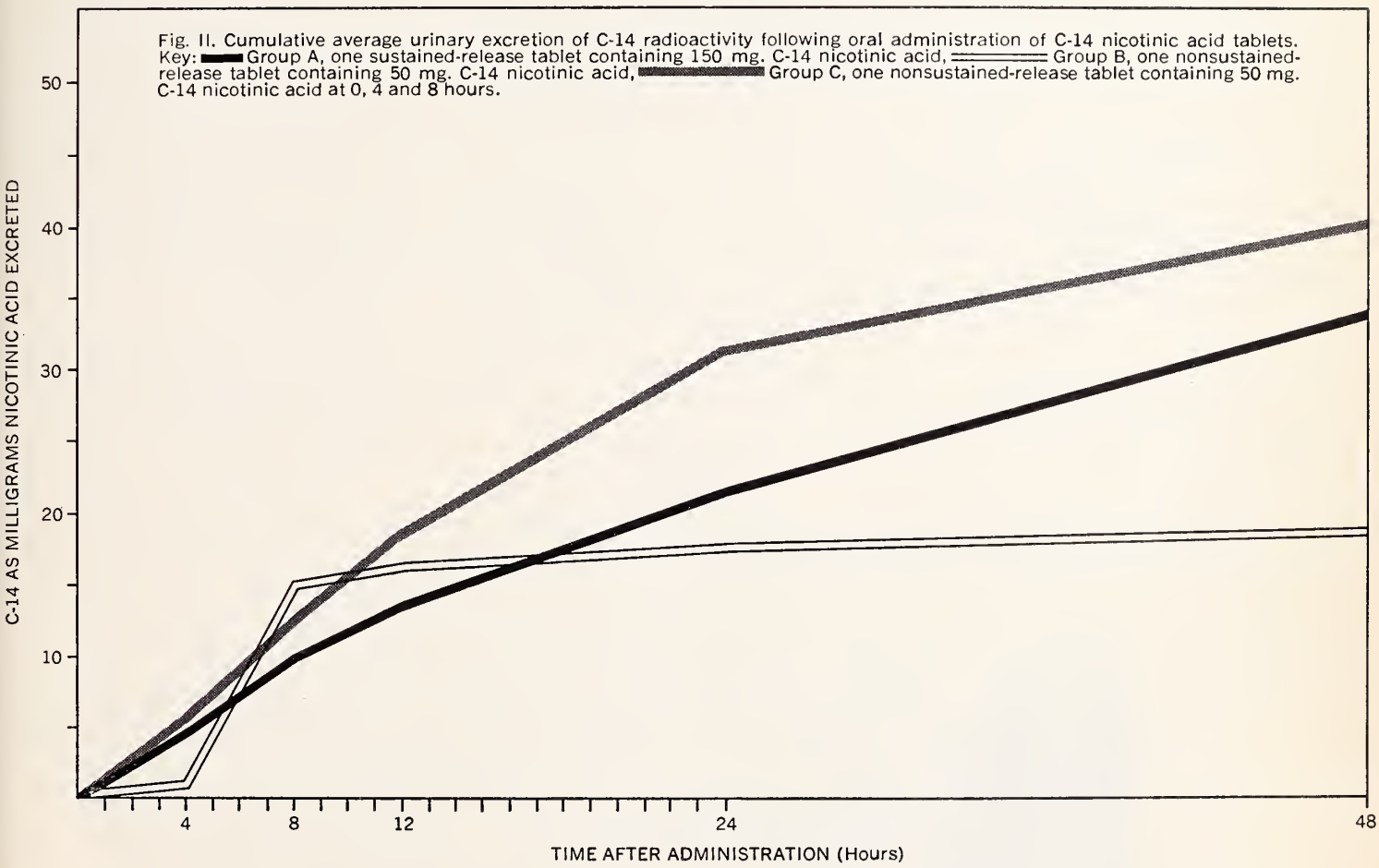


Fig. II. Cumulative average urinary excretion of C-14 radioactivity following oral administration of C-14 nicotinic acid tablets. Key: Group A, one sustained-release tablet containing 150 mg. C-14 nicotinic acid, Group B, one nonsustained-release tablet containing 50 mg. C-14 nicotinic acid, Group C, one nonsustained-release tablet containing 50 mg. C-14 nicotinic acid at 0, 4 and 8 hours.

less confused and moody. Personal care, memory, emotional stability, social attention improve. Fatigue, apathy and irritability are reduced.

A prescription for 100 tablets of Geroniazol TT will permit your patients to enjoy the benefits of time-prolonged nicotinic acid/pentylenetetrazol therapy, at an economical price. Dosage is only one tablet every 12 hours.

Contraindications: There are no known contraindications.

Precautions: Exercise caution when treating patients with a low convulsive threshold.

Side Effects: Side effects are rarely encountered, however due to the vasodilatation effect of nicotinic acid, transitory mild nausea, flushing, tingling and pruritus are possible.

Dosage: One tablet every 12 hours.

Supplied: Prescribe bottles of 100 tablets, to take advantage of recent price reduction.

References: 1. Report by Nuclear Science & Engineering Corp., Pittsburgh, Pa., in files of Philips Roxane Laboratories. 2. Connolly, R.: W. Virginia Med. J. *56*:263 (Aug.) 1960. 3. Curran, T. R., and Phelps, D. K.: Am. Pract. & Digest Treat. *11*:617 (July) 1960.

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personal affairs without sacrifice, but the sacrifice is compensated by great satisfactions when the service is not dedicated to self.

Because it is still true that more people are moved by decent, generous and humanitarian motives than the opposites of these in the lives they lead, the missions to Vietnam like that of Dr. Bennett are less heralded than when a band of bearded Vietniks go there with intent to disturb. The former, however, will leave something of lasting memory; the others only painful memory.—*Huntington Herald-Press*, Dec. 19, 1967.

Doctors For Indiana

A far-sighted program to encourage doctors to stay in Indiana is moving ahead.

In the first phase of the program, Methodist, St. Vincent's and General Hospitals in Indianapolis and six others in the state have shared in a grant of $319,500 from state funds.

The grant is part of a long-range plan to improve and facilitate medical education programs for interns and resident physicians in Indiana hospitals. It is based on the allocation of $1,500 to each hospital for each intern or resident enrolled in the program.

By this method it is hoped there will be an increase in the number of residencies and internships available in the state to graduates of the Indiana University School of Medicine and in the interns' opportunities to keep abreast of the latest developments in medicine.

The exodus of recently-graduated medical doctors from the state has become increasingly serious but the explanation for their removal is a simple one. There have not been enough residencies and internships available, so the graduates have been forced to complete this vital part of their training elsewhere.

To answer this problem the legislature set up funds enabling hospitals to create more internships in Indiana and to provide a communications link between the I.U. Medical Center and the participating hospitals. Thus the new doctors would have at their disposal the vast resources of the Medical Center at any time.

The plan is a good one. It could prove to be a boon to the public and the medical profession alike.—*Indianapolis News*, Dec. 27, 1967. ◄

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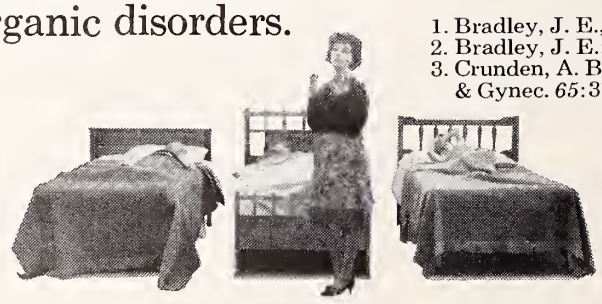
2. Bradley, J. E.: Mod. Med. *20*:71 (Oct. 15) 1952.
3. Crunden, A. B., Jr., and Davis, W. A.: Am. J. Obst. & Gynec. *65*:311 (Feb.) 1953.



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Supervised by THE COUNCIL
Volume 61 — February 1968 — Number 2

Medical and surgical management of myocardial ischemia is effective.

Principles of Therapy in Angina Pectoris

WILLIAM C. ELLIOTT, M.D.
Indianapolis*

MANY forms of therapy are currently being suggested for angina pectoris. To utilize these various tools, it is important to understand certain principles which have become apparent in recent years.

A. Coronary and Myocardial Physiology

1. *Aerobic Metabolism*

The normal heart utilizes aerobic metabolism. It is rich in oxidative apparatus. Only under extreme conditions does it change to less effective anaerobic metabolism. The muscle extracts and oxidizes any fuel source available. According to arterial concentrations, it utilizes varying amounts of ketones, fatty acids, lactic acid, pyruvic acid and glucose.

2. *Flow Dependence*

The aerobic needs of the heart are met first by coronary flow. With increased demand due to exertion, the extraction of oxygen remains constant (70%) and flow increases.

3. *Autoregulation of Coronary Flow*

With increased myocardial metabolism some product (possibly adenosine) is released which dilates the small coronary vessels that control resistance. This autoregulation of flow maintains a balance between supply and demand. The large coronary vessels offer little resistance to flow unless they become diseased.

4. *Collateral Vessels*

Potential collateral connections between the coronary vessels exist. They do not increase in size or flow unless there is a pressure differential between arteries. Pressure and flow do not drop across a coronary aterial stenosis until it exceeds 75% of the lumen. However, any stenosis may offer abnormal resistance and reduce the reserve capability for increasing flow.

5. *Coronary Inadequacy*

Coronary inadequacy may result from coronary arterial obstructive disease or from the combination of hypertrophy and increased myocardial oxygen demands as in aortic stenosis.[1] When coronary flow is inadequate, several abnormalities result:

a. *Increased Oxygen Extraction*
With flow restricted there is a limited attempt to extract more oxygen from the blood available.

b. *Anaerobic Metabolism*
With oxygen deficit, myocardial metabolism becomes anaerobic.

Using anaerobic metabolism, the myocardium functions like skeletal muscle and no longer requires oxygen to produce energy.[2] The energy source, adenosinetriphosphate

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(ATP), is derived from utilization of glucose and glycogen without oxidation. The glycogen is stored intracellularly and glucose enters the hypoxic cell membrane at an increased rate. The end result of this glycolytic metabolism is a reduced amount of energy from ATP and an intracellular accumulation of lactic acid. Myocardial cells remain viable but centractile force is reduced. If ischemia is extensive, cardiac output is depressed and the filling pressures in the heart increase. This results in heart failure and may be the basis for dyspnea often associated with angina.[3]

With these changes the cellular membrane integrity is altered and potassium is lost from the cell and the characteristic ST-T depressions of ischemia develop on the ECG.

If oxygen is restored with blood flow, metabolism reverts to aerobic within one minute. This reversibility remains possible for about 30 minutes. Cellular acidosis is the setting for necrosis with activation of proteolytic enzymes but it is unlikely that short periods of ischemia result in cell death. It has been demonstrated that the subendocardial muscle is the area most susceptible to hypoxia when coronary flow is reduced. Ischemia starts there and is usually greatest in this zone.

6. *Myocardial Lactate Production*

The lactic acid that accumulates inside the hypoxic cell cannot be metabolized further because oxygen is not available. Lactate then diffuses into the venous blood. Normally the heart extracts lactate from the arterial blood and uses it as fuel. With ischemia, the muscle produces lactate and venous levels exceed arterial concentrations.

This abnormality, lactate production, may be detected clinically by catheterization of the coronary sinus. Measurements are made at rest and with some cardiac stress such as exercise, isoproterenol infusion or pacing the heart at a rapid rate. It is usually possible to test for lactate production by moving the coronary sinus catheter into several different positions.[4] This allows sampling of the venous drainage from the anterior, lateral or inferior surface of the left ventricle. It is often possible to localize the area of myocardial ischemia.

This technic has been found to be a more sensitive indicator of ischemia than the resting or exercise ECG or by the use of coronary angiography alone. It is also superior to indirect measurements of coronary flow or detection of increased (abnormal) myocardial oxygen extraction patterns.[5]

Metabolic studies of lactate metabolism are very useful in interpretation of coronary angiograms. Pictures alone are not always adequate to judge the functional significance of arterial lesions.

7. *Pain Production*

Myocardial lactate production has been observed both with and without angina and other evidence of ischemia. High arterial concentrations of lactic acid do not produce pain. The exact substance which stimulates pain receptors has not been identified. Potassium leakage and tissue acidosis are similar to the conditions found in inflammation and may activate the release of a plasma or tissue kinin. Kinins are known to stimulate pain fibers in inflammation. However, the observation that acute myocarditis is rarely a cause of myocardial pain makes this explanation less attractive.

B. Therapeutic Principles

1. *Accurate Diagnosis*

Selective coronary cinearteriography is a safe means of determining the location and severity of arterial lesions in angina pectoris. It is very accurate if attention is given to radiographic technic and interpretation is based on experience.[6] For optimal information, myocardial lactate production should be sought at the same study. Ventriculography and ventricular function studies are important in making clinical decisions.

a. *Coronary Type Pain and Normal Coronary Angiograms*

Repeatedly, patients with a classical description of angina are found to have no arterial lesions.[7] Some have a positive Master's test and others have non-specific ECG abnormalities. Still other patients have little or no exertional pain but have repeated episodes of pain similar to coronary insufficiency. They frequently require hospitalization but have no arterial lesions visualized. The problem of chest pain may become disabling and management is difficult as no effective therapy has been found. No deaths or definite myocardial infarctions have been reported.

The cause of the pain is not clear but some of these patients have been found to have myocardial lactate production. They are not all neurotic. Theories of the etiology of the syndrome abound. Among these, it has been suggested there may be coronary spasm, small vessel disease or abnormal oxygen-hemoglobin dissociation.

b. *Angina With Typical Lesions*

Coronary angiograms permit diagnosis down to the tertiary vessels. Collaterals which are much smaller can be detected. There has been no consistent correlation between symptoms, arterial lesions and collateral development.[8]

2. *Factors Contributing to Pain*

a. *Determinants of Myocardial Oxygen Consumption*

To further understand the production of ischemia, it is important to understand the circumstances that result in increased coronary flow. The determinants of myocardial oxygen consumption are complex. These include ventricular wall tension

which is related to ventricular volume and the pressure generated. Also the speed of shortening of myocardial fibers contributes to the oxygen requirement.

In most clinical situations, the pressure generation is the principal factor that governs oxygen usage. It is useful to think in terms of the amount of pressure generated per minute. The term, Pressure Time Per Minute (PTM or Tension-Time Index, TTI) is derived from multiplying the mean systolic pressure by time of systole by minute heart rate.

Most angina patients have a reproducible threshold for angina at some PTM value. When this PTM level is reached by exercise, increased atrial pacing or emotional stress, the subject experiences pain.[9,10] This point may be reached by alteration of rate or blood pressure.

This concept is helpful in understanding the genesis of a specific patient's pain. It does not depend on knowledge of the other secondary factors such as cardiac output, mechanical work of the heart, volume or rate of contraction.

Occasionally in dilated hearts with increased volume and wall tension, reduction of volume by digitalis and diuresis results in reduction in angina. This is not common and control of PTM is the usual means of ameliorating the symptoms.

3. *Exercise Tolerance Testing*

Another important principle is the use of the exercise tolerance test to determine effectiveness of therapy. If therapy is effective it can be measured in exercise testing to the point of pain. Subjective reports of improvement may be misleading.

This testing is safe with either simple Master's two-step apparatus or with elaborate quantitative measurement of workload, ECG response, oxygen consumption and blood pressure. Testing should be done well after meals and a rest period. The testing should be repeated to determine the variability in each subject.

Exercise tolerance records give objective indication of the progression of the therapy or the disease.[11] This should be the backbone of angina management programs.

C. Specific Therapy

1. *Nitrites*

Nitroglycerine is effective in two ways. The main action of the drug is to reduce the work of the heart and reduce systolic pressure. PTM usually decreases even with a compensatory rate increase. Coronary flow does not then increase, but in animals, the drug results in a redistribution of flow to ischemic areas by increasing collateral flow. This is achieved by decreasing large vessel resistance which promotes collateral flow.[12]

Nitrites will reduce the oxygen requirements of the heart if they can be supplied in adequate arterial concentrations. The problem is that oral preparations are deactivated by the portal circulation. Sublingual preparations are the only reliable means of administration (except inhalation or skin absorption). Five mgm isorbide dinitrate (Isordil) or 5 mgm erythrityl tetranitrate (Cardilate) taken sublingually may act longer than the usual doses of nitroglycerine.

The effectiveness of oral forms of these drugs remains variable and uncertain.

2. *Dipyridamole (Persantin)*

Dipyridamole has little clinical effectiveness. The drug increases coronary flow without increasing myocardial oxygen consumption. It blocks the autoregulatory mechanism and flow increases but there is no augmentation of collateral flow. Therefore, drugs that increase total myocardial blood flow are not necessarily beneficial in ischemic heart disease.[12]

3. *Beta Adrenergic Receptor Blocking Drugs*

Propranolol (Inderal, Ayerst) is the newly released beta-adrenergic receptor blocking drug. It is currently approved for use in cardiac arrhythmias but is still under investigation for use in angina. Its use for investigation in coronary disease still requires consent of the patient.

The sympathetic nervous system acts on the heart by stimulating beta receptors resulting in an increase in rate and contractility. Beta blocking drugs will result in rate reduction and a decrease in contractility.

This drug is the most effective agent ever used in angina. In proper doses nearly all subjects will improve somewhat. Total rehabilitation is possible in many.[13]

With oral use, the rate decreases to 50-60 beats per minute and blood pressure may decrease with lowering of the cardiac output. With beta blockade, the tachycardia of exercise is blunted although the exercise is still possible. PTM remains low and exercise tolerance improves. The greatest improvement in exercise tolerance is found with the combined use of propanolol and sublingual nitrites. With this combination, both blood pressure and heart rate are reduced, hence, myocardial oxygen demands are minimized.

There are some limitations to the use of this active agent:

a. By cardiac output reduction it may precipitate congestive failure.

b. The drug will increase bronchospasm in asthmatics.

c. It should be used with caution in diabetics.

d. Excessive bradycardia may result.

Several other questions have come from investigation of the drug. It has resulted in myocardial lactate production in patients with coronary disease.[14] The cause is not

clear but may be due to a reduction in collateral flow when total coronary flow is reduced. It is not known if collateral development would be adversely affected.

In addition, beta-blockade would not be advantageous in an angina patient who developed an acute infarction which resulted in hypotension or shock. However isoproterenol infusion, in high doses, can partially reverse beta-blockade.

Also there has been a report of diffuse myocardial damage in rats treated with high doses of the drug.[15] This awaits confirmation and interpretation.

For these reasons long-term therapy in angina pectoris may not be advisable with propranolol.

4. *Control of Hypertension*

Elevations of systolic pressure increase PTM and the energy demands of the heart. Often prolonged bouts of chest pain are associated with episodes of hypertension. The blood pressure may rise before the pain. It is not certain if the coronary vasculature participates in the vasoconstriction. Thus, observations of blood pressure and pulse are indicated in any angina subject during pain to determine if systolic pressure lability is part of the etiology. The pressure response to nitroglycerine is often helpful in understanding the symptomatology.

Spikes of systolic pressure are difficult to control, especially if the patient is usually normatensive. Heavy sedation may be helpful. Caution must be used if propranolol and reserpine are combined as excessive catecholamine depletion may result.

The reduced exercise tolerance due to breathing cold air may be due to an increase in peripheral vascular resistance. This may be abolished by use of a weather mask.

Sleep studies have shown that nocturnal angina is usually associated with dream activity. Hypnotics are of little value but the combined use of propranolol and nitroglycerine ointment (Nitrol) reduces the cardiovascular response to emotional stress in dreams.

5. *Strenuous Exercise in Angina*

Objective improvement in exercise tolerance due to regular graded exercise has been established. The gains are not maintained when exercise is stopped. The improvement is due to conditioning. When conditioned the subject can do more exercise while the heart does less work. The effect is similar to beta-blockade.

It has not been proven that collaterals develop more in response to exercise. Angiographic demonstration of collaterals depend on the technic of injection. Any claims of augmented collateral development due to exercise must be closely examined on technical grounds. Continued improvement in exercise tolerance after stopping the exercise program would argue for collateral development. Many subjects with angina cannot embark on exercise programs. Some others note that angina clears on continuing exercise. This "warm-up" phenomenon may be explained by high arterial lactate concentrations secondary to skeletal muscle activity. Lactate is a potent peripheral and coronary dilator.

Exercise of patients with ischemic heart disease is hazardous and deaths have occurred during exercise in various programs. Ischemia can be detected by ECG during exercise in patients with no pain.

The claims that mortality is decreased by exercise in ischemic heart disease are not based on controlled studies. These claims have been derived by comparison with mortality in years when treatment of myocardial infarction was not highly developed.

Until more definitive studies show positive benefits from exercise, it is not clear that the advantages outweigh the risks.

6. *Myocardial Revascularization*

Several new principles have been discovered concerning revascularization.

a. When arteries are implanted into the normal, nonischemic myocardium, most will eventually be found patent. They also establish small artery to artery communications with the existing coronary bed.

b. If the nearby coronary is severely stenotic or occluded, the implanted vessel will offer significant collateral flow to the diseased vessel below the obstruction.

c. Both internal mammary arteries and abdominal arteries can be implanted in various surfaces of the left ventricle.

d. Criteria for successful implantation are:

1. Stenosis of 90% or more in a major coronary vessel.

2. Angiographic demonstration of collaterals into the ischemic area suggesting "demand" for collaterals.

3. Lactate production from the area to be implanted.

Further definition of the area with greatest "demand" has been done by intra-operative regional myocardial blood flow.[16] Isotope solutions are injected into the surface of the muscle and the slowest clearance defines the area of lowest flow.

Using these technics, implanted vessels have been shown to offer collaterals at recatheterization studies one year after operation. Aside from convincing clinical and angiographic results, metabolic studies have suggested reduction in ischemia. In a small number of patients, it has been demonstrated that lactate production has been eliminated one year after operation with a functioning mammary implantation.[17]

Animal experiments have shown that implanted arteries can almost totally replace ligated coronary

vessels. Implants are capable of delivering large amounts of flow and respond to increased demands with more flow. Experiments have suggested greater survival in animals that have implantations prior to coronary ligations. However, the indications for the operation remain based on the clinical effectiveness of the procedure in angina.

Mortality in the operation can be maintained under five percent by exclusion of patients with severe heart failure and careful maintenance of blood pressure during the operation. No cardiac bypass is necessary in these procedures.

In some patients, direct patch graft procedures are possible to relieve a severe, proximal right coronary stenosis. This requires cardiac bypass but is indicated in selected cases.

7. *Combined Therapy*

The combined use of sublingual nitrites, beta-blockade and revascularization has been successful in many patients with severe angina. The goal has been to control symptoms with drugs until six to 12 months has passed after revascularization operation. During this time the implanted vessels continue to develop as a source of collaterals. Beta-blockade is discontinued as soon as symptoms permit.

Summary

With inadequacy of coronary flow, the myocardium changes from aerobic to anaerobic metabolism. This can be detected and localized by sampling several sites in the coronary sinus for myocardial lactate production. This technic is used to aid in interpretation of selective cine coronary arteriograms and to select therapy.

Medical therapy depends on control of myocardial oxygen requirements by control of heart rate and blood pressure. This is aided by use of sublingual nitrites and careful, short term use of the new beta-adrenergic receptor blocking drugs. Surgical revascularization by arterial implantation has been proven successful in carefully selected subjects. This offers a more definitive therapy than use of drugs alone.

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Contraindications: Thrombophlebitis, history of thrombophlebitis or pulmonary embolism; liver dysfunction or disease; known or suspected carcinoma of breast or genital organs; undiagnosed vaginal bleeding.

Warnings: Discontinue medication pending examination if there is sudden partial or complete loss of vision, or if there is a sudden onset of proptosis, diplopia, or migraine. If examination reveals papilledema or retinal vascular lesions, medication should be withdrawn. Since the safety of ORACON in pregnancy has not been demonstrated, it is recommended that for any patient who has missed two consecutive periods, pregnancy should be ruled out before continuing the contraceptive regimen. If the patient has not adhered to the prescribed schedule, the possibility of pregnancy should be considered at the time of the first missed period. Detectable amounts of the active ingredients in oral contraceptives have been identified in the milk of mothers receiving these drugs. The significance of this to the infant has not been determined.

Precautions: The pretreatment physical examination should include special reference to breast and pelvic organs, as well as a Papanicolaou smear. Endocrine and possibly liver function tests may be affected by treatment with ORACON. Therefore, if such tests are abnormal in a patient taking ORACON, it is recommended that they be repeated after the drug has been withdrawn for two months. Under the influence of estrogen-progestogen preparations, pre-existing uterine fibromyomata may increase in size. Because these agents may cause some degree of fluid retention, conditions that might be influenced by this factor, such as epilepsy, migraine, asthma, cardiac or renal dysfunction, require careful observation. ORACON should be used with caution in patients with a history of cerebrovascular accident. In relation to breakthrough bleeding, as in all cases of irregular bleeding per vaginam, nonfunctional causes should be borne in mind. In cases of undiagnosed vaginal bleeding, adequate diagnostic measures are indicated. Patients with a history of psychic depression should be carefully observed and the drug discontinued if the depression recurs to a serious degree. Any possible influence of prolonged ORACON therapy on pituitary, ovarian, adrenal, hepatic or uterine function awaits further study. A decrease in glucose tolerance has been observed in a small percentage of patients on oral contraceptives. The mechanism of this decrease is obscure. For this reason, diabetic patients should be carefully observed while receiving ORACON therapy. Because of the occasional occurrence of thrombophlebitis and pulmonary embolism in patients taking oral contraceptives, the physician should be alert to the earliest manifestations of the disease. Because of the effects of estrogens on epiphyseal closure, ORACON should be used judiciously in young patients in whom bone growth is not complete. The age of the patient constitutes no absolute limiting factor, although treatment with ORACON may mask the onset of the climacteric. The pathologist should be advised of ORACON therapy when relevant specimens are submitted.

Side Effects: The following adverse reactions have been

continued on next page

observed in patients receiving oral contraceptives: nausea, vomiting, gastrointestinal symptoms (such as abdominal cramps and bloating), breakthrough bleeding, spotting, change in menstrual flow, amenorrhea, edema, chloasma or melasma, breast changes (tenderness, enlargement, secretion), change in weight (increase or decrease), changes in cervical erosion and cervical secretions, suppression of lactation when given immediately post-partum, cholestatic jaundice, migraine, rash (allergic), rise in blood pressure in susceptible individuals, mental depression. Although the following have been reported as side effects in users of oral contraceptives, no cause and effect relationship has been established: anovulation post-treatment, premenstrual-like syndrome, changes in libido, changes in appetite, cystitis-like syndrome, headache, nervousness, dizziness, fatigue, backache, hirsutism, loss of scalp hair, erythema multiforme, erythema nodosum, hemorrhagic eruption, itching. Post-marketing experience with ORACON has revealed that hypermenorrhea and acne may also occur. The following occurrences have been observed in users of oral contraceptives. A cause and effect relationship has neither been established nor disproved: thrombophlebitis, pulmonary embolism, neuro-ocular lesions. The following laboratory results may be altered by the use of oral contraceptives: increased sulfobromophthalein and other hepatic function tests; coagulation tests (increase in prothrombin, Factors VII, VIII, IX, and X); thyroid function (increase in PBI and butanol extractable protein bound iodine and decrease in T^3 values); metyrapone test; pregnanediol determination.

Administration: Counting onset of menses as Day 1, the patient starts medication on Day 5 of the cycle and takes one white tablet daily from Day 5 through Day 20, then one pink tablet daily from Day 21 through Day 25. Patients should be cautioned to follow the dosage schedule strictly. Evening administration is suggested. An additional contraceptive method is recommended for the first 7 tablet days of the first cycle of ORACON usage. If the regimen is interrupted, for the fullest possible protection an additional contraceptive method is recommended for the rest of the cycle. If flow should not occur by the 7th day after taking the last pink tablet, the next course of therapy should be initiated on that day, thereby allowing 6 full days without medication. Some physicians prefer to stipulate that the patient never allow more than 6 unmedicated days to elapse between cycles regardless of the time of onset of withdrawal bleeding. If two consecutive periods are missed, the possibility of pregnancy should be considered and the patient should report to the physician. However, pregnancy should be suspected at the first missed period if the patient has deviated from instructions. For those few occasions when breakthrough bleeding occurs, the following recommendations are made: (a) Spotting. Continue medication. (b) Menstrual-type flow. Discontinue medication and begin a new medication cycle on the fifth day. Because of the rarity of frank breakthrough bleeding, especially after the first few cycles, it is not necessary to provide the patient with additional tablets to allow for doubling the dose. Recurring breakthrough bleeding, particularly after the first few cycles, should be reported to the physician for further investigation. Because of the common occurrence of increased cervical mucus, it is recommended that the patient be apprised of this possibility.

Availability: ORACON is available as 16 white and 5 pink tablets. Each white tablet contains 0.1 mg. of ethinyl estradiol; each pink tablet contains 25 mg. of dimethisterone and 0.1 mg. of ethinyl estradiol. Each month's supply includes patient instructions. Complete details on ORACON are available from Mead Johnson Laboratories.

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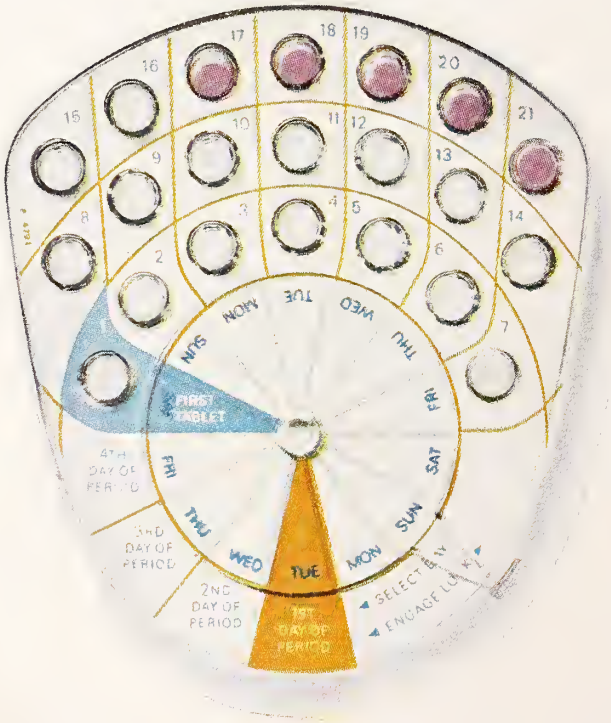

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Pacemakers open up a whole new volume of ECG interpretation.

Pacemaker Electrocardiography

CHARLES FISCH, M.D.
*Indianapolis**

THE widespread clinical use of cardiac pacemakers has ushered in an era of iatrogenic "pacemaker electrocardiography (ECG)." The interpretation of the "pacemaker ECG" has become routine at the I.U.M.C. as well as other centers in which a large number of such pacemakers are being implanted. In general the "pacemaker ECG" provides evidence as to proper functioning of the equipment, the characteristics of the particular pacemaker and not infrequently demonstrates one or more of the physiological phenomena referred to below. Since the original introduction of the pacemaker, a variety of models have been developed, e.g., fixed rate pacemaker, atrial synchronous pacemaker, demand pacemaker which is suppressed by spontaneous beats and responds only to a pause, demand pacemaker which may be activated not only by a prolonged pause but also by spontaneous ventricular activation (premature beats or S-A beats). The availability of such a variety of pacemakers with a choice of endocardial and/or epicardial placement and the frequent superimposition of spontaneous arrhythmias may make the interpretation of "pacemaker" quite difficult.

It should be pointed out that as an important by-product of the application of artificial pacemakers in the therapy of Adams-Stokes disease, a number of electrophysiological phenomena, previously described in animals, have been demonstrated and/or quantitated for the human heart. For example, aberrancy of conduction, supernormality of excitability and conduction, facilitation of conduction, vulnerability, the Wedensky effect and facilitation, unidirectional block, the limits of refractoriness, the speed of ventricular excitation, parasystole, fusions, etc.

The purpose of this paper is to present examples of the ever increasing variety of pacemaker arrhythmias illustrating (1) the behavior of some of the more commonly used pacemakers, (2) the pacemaker as an electrophysiological investigative tool, (3) the interplay of two artificial pacemakers and finally (4) the problems of the "pacemaker ECG" complicated by spontaneous arrhythmias.

Figure 1 (MCGH-191153) represents a fixed rate epicardial pacemaker with intermittent normal A-V conduction and varying degrees of ventricular fusion. The top row demonstrates normal A-V conduction with a P-R of 0.20 sec. and intraventricular block of right bundle configuration (RBBB). The pacemaker discharges at a rate of 75 and the pacemaker artifact is superimposed on the T wave. Following the seventh conducted beat, the stimulus artifact falls outside of the refractory period of the conducted beat and stimulates the ventricle with a resultant "left" bundle configuration (LBBB). At this point there is no atrial contribution to ventricular activation. In rows 2 (beginning with the fourth QRS), 3, 4, and 5 (with the exception of the last two QRS complexes) the QRS complex is neither purely of the RBBB or LBBB but a mixture, the so called ventricular fusion. Each of the QRS complexes is preceded by a P wave with a varying P-R and each is associated temporally with a pacemaker artifact. The QRS is composed of ventricular activation which is due both to normal A-V conduction and to pacemaker stimulation. Depending on whether more of the ventricle is activated via the normal A-V conduction or by the artifact pacemaker, the QRS will resemble more clearly the RBBB or LBBB respectively.

Figure 2 (L-428018) represents an epicardial demand pacemaker which is activated by both an asystole of predetermined duration and spontaneous ventricular excitation. First, three QRS complexes in V-1 are pacemaker induced, the perpendicular pacemaker artifact easily identifiable, with a stimulus to stimulus interval of 0.84 sec. Following the third driven QRS, a ventricular premature follows each paced QRS giving rise to a bigeminy. These V.P.S. in turn discharge the pacemaker with stimulus artifact recorded on the down-

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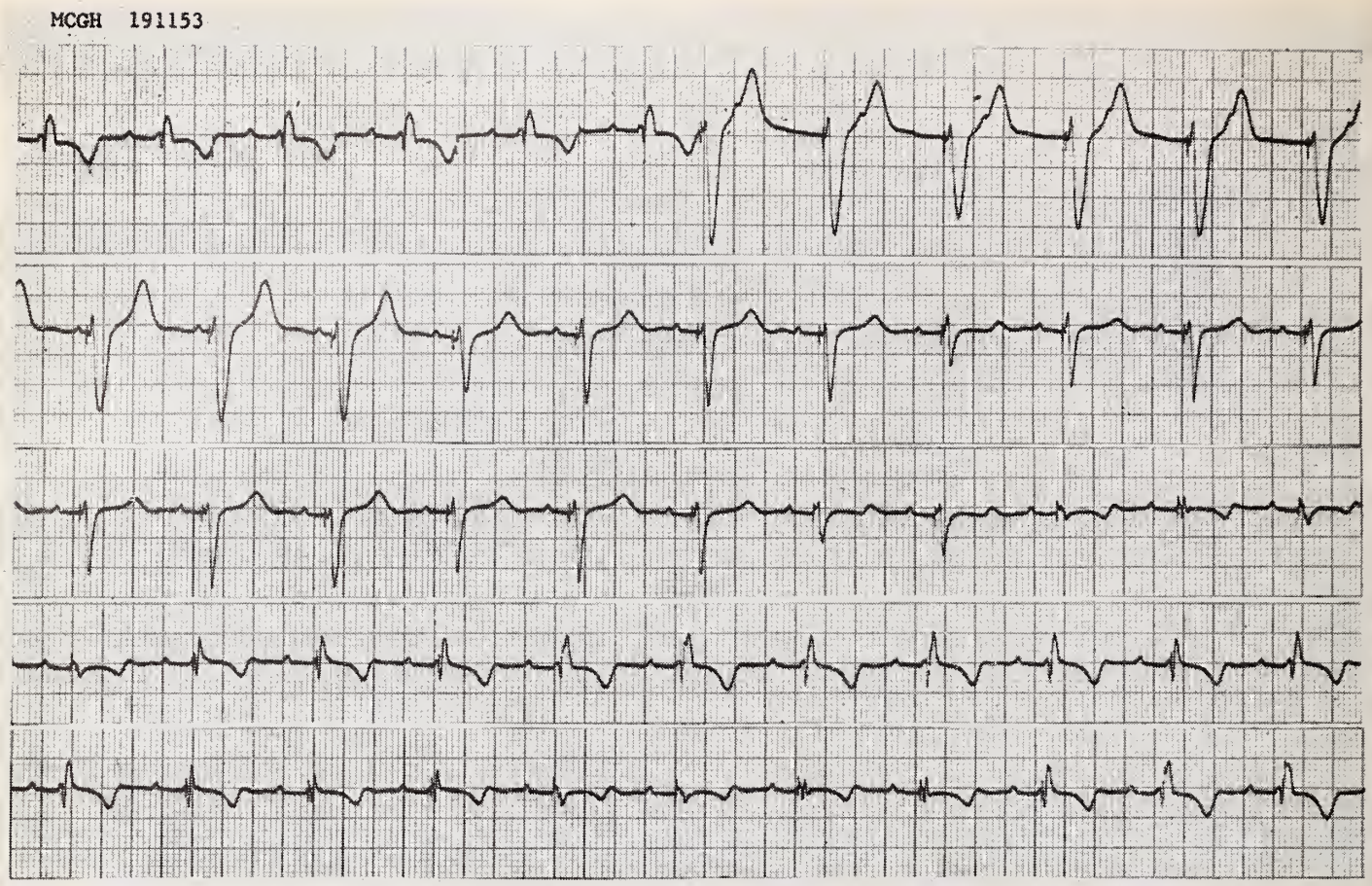

FIGURE 1

REPRESENTS a fixed rate epicardial pacemaker in a patient with intact A-V conduction demonstrating varying degrees of ventricular fusion. See text.

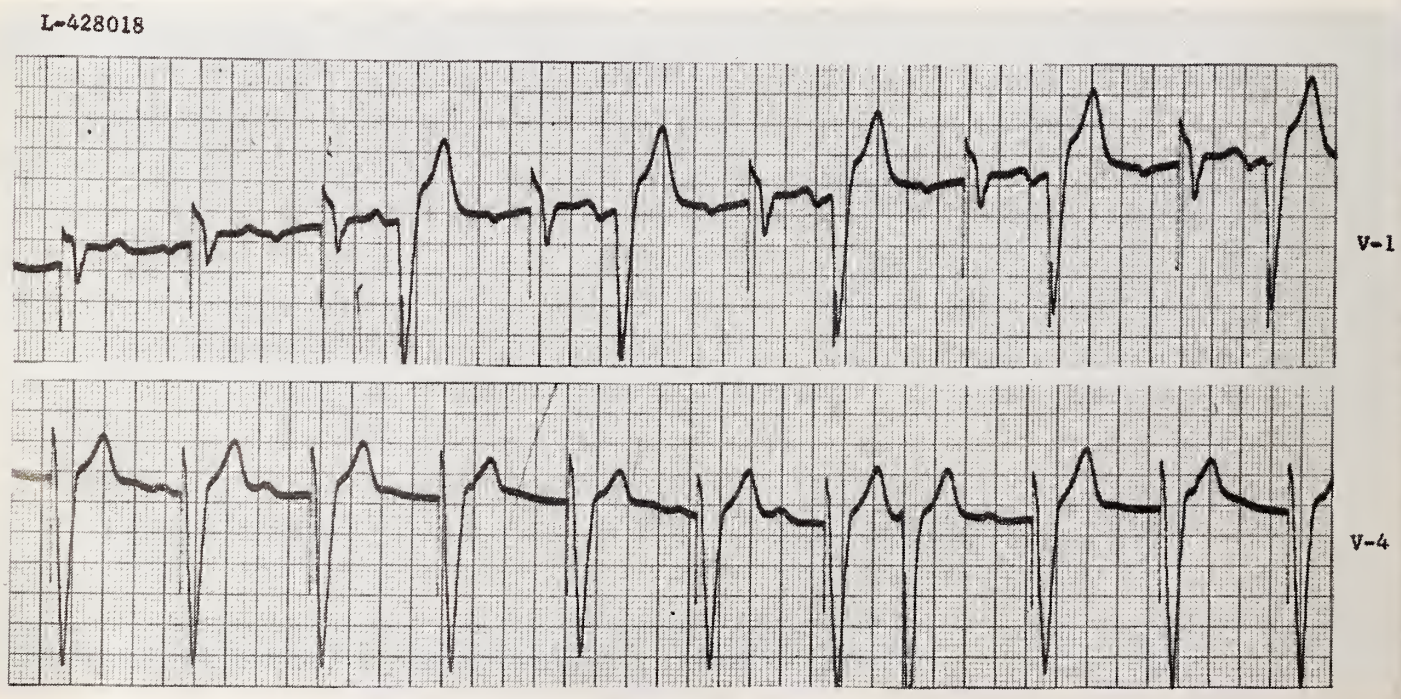

FIGURE 2

REPRESENTS an epicardial demand pacemaker which is activated by both a pause of predetermined duration (0.84 sec.) and spontaneous ventricular excitation. See text.

slope of the V.P.S. Following the V.P.S., the pacemaker again stimulates the ventricles after an interval of 0.84 sec., the "demand" interval of this particular pacemaker. A single V.P.S. activating the artificial pacemaker is recorded in V-4.

Figure 3 (L-424273) represents an epicardial demand pacemaker, similar to the one described in Figure 2. activated by "demand" pause as well as spontaneous ventricular depolarization. In addition however, this figure illustrates another characteristic of this particular pacemaker, namely a built in refractory period of 0.50 sec. Analysis of lead 2 will clarify the rather complex nature of this particular pacemaker arrhythmia. The first QRS is pacemaker driven. Following this there is a V.P.S. with a coupling interval of 0.46 sec. This V.P.S. does not activate the pacemaker and the next stimulus artifact follows the first stimulus artifact by 0.84 sec., the predetermined rate of the pacemaker. Similar V.P.S. which do not discharge the pacemaker are seen following the third and sixth stimulus artifact. Their coupling interval measures .36 and .45 sec. respectively. A V.P.S. follows the eighth stimulus artifact by an interval of .52 sec. and activates the pacemaker. In AVR, two V.P.S. follow the stimulus artifact by 0.58 sec. or 0.08 sec. after the end of the "refractoriness" of the pacemaker and activate the pacemaker. In AVF, on the other hand, the V.P.S. follows the immediately preceding stimulus artifact by 0.48, 0.46 and 0.46 respectively. These premature complexes fall within the refractory period of the pacemaker and as a result fail to activate the pacemaker.

Figure 4 (L-396677) illustrates an instance of unidirectional block with normal retrograde (V-A) conduction in the presence of complete forward (A-V) block. The dissociation between antegrade (forward, A-V) and orthograde (retrograde, V-A) conduction has been documented on occasion in patients with third degree A-V block. With the advent of artificial pacemaking, retrograde (V-A) conduction in the presence of complete antegrade (A-V) has been frequently observed. This figure was recorded in a patient with a fixed rate epicardial pacemaker. Following the third, fifth and seventh QRS, inverted, retrograde (V-A) conducted P waves following the stimulus artifact by about 0.16 to 0.17 sec. are present. Failure of consistent retrograde conduction is due to interference by the sinus P wave which not only leaves the atrium refractory but most likely penetrates the A-V junction making the latter refractory to attempted retrograde conduction from the ventricles.

Figure 5 (L-405472) demonstrates a temporary transvenous (endocardial) pacemaker with retrograde (V-A) conduction in the presence of

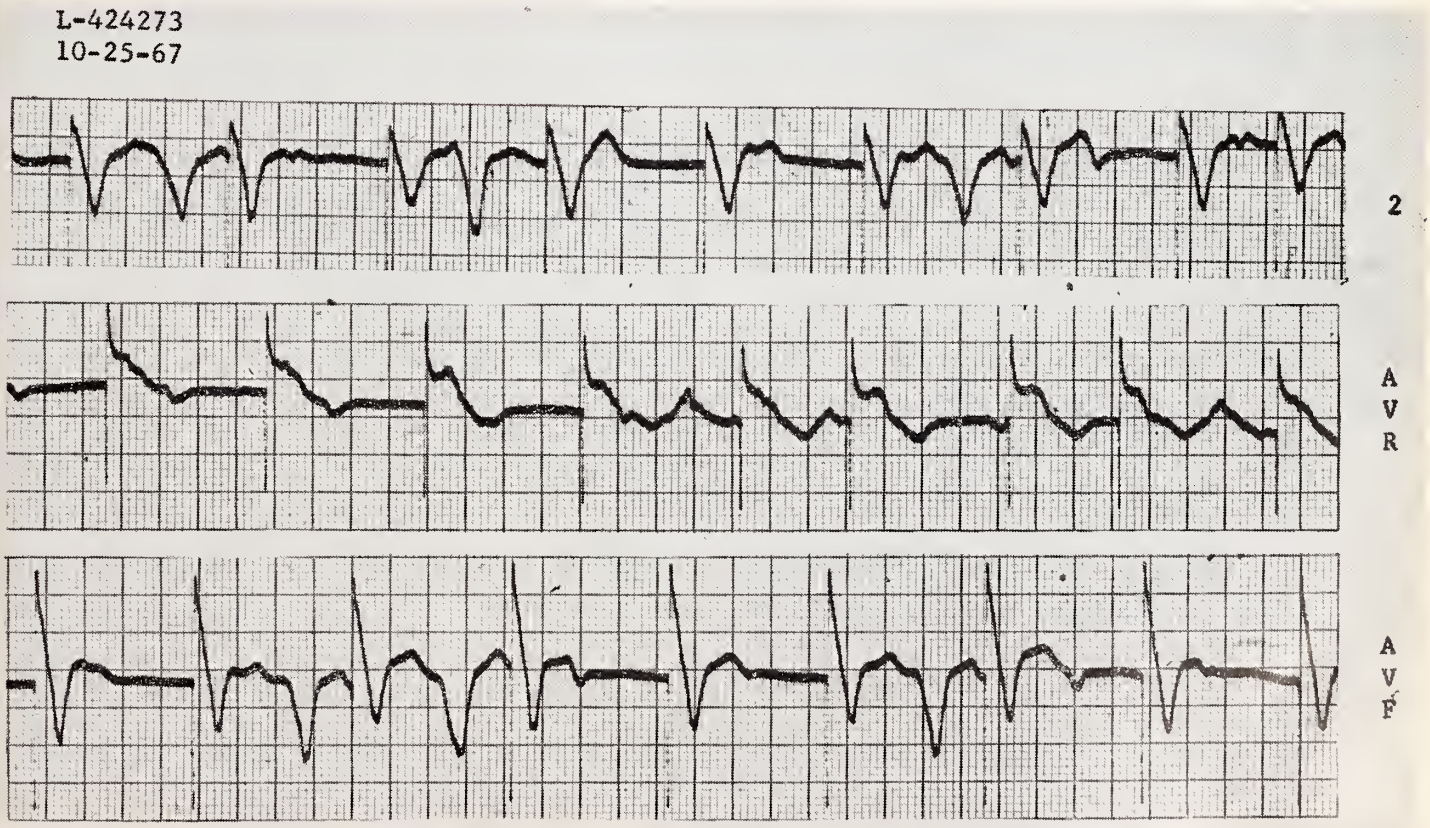

FIGURE 3

REPRESENTS an epicardial demand pacemaker demonstrating the built in refractory period (0.50 sec.) and its ability to become activated by both a pause and spontaneous ventricular excitation, in this case V.P.S. See text.

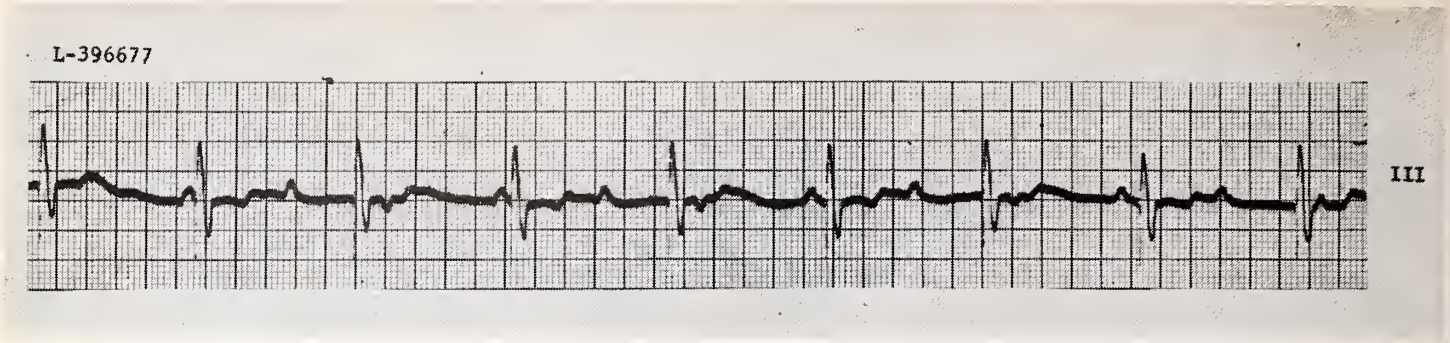

FIGURE 4

ILLUSTRATES normal retrograde conduction in the presence of complete forward block (unidirectional block). See text.

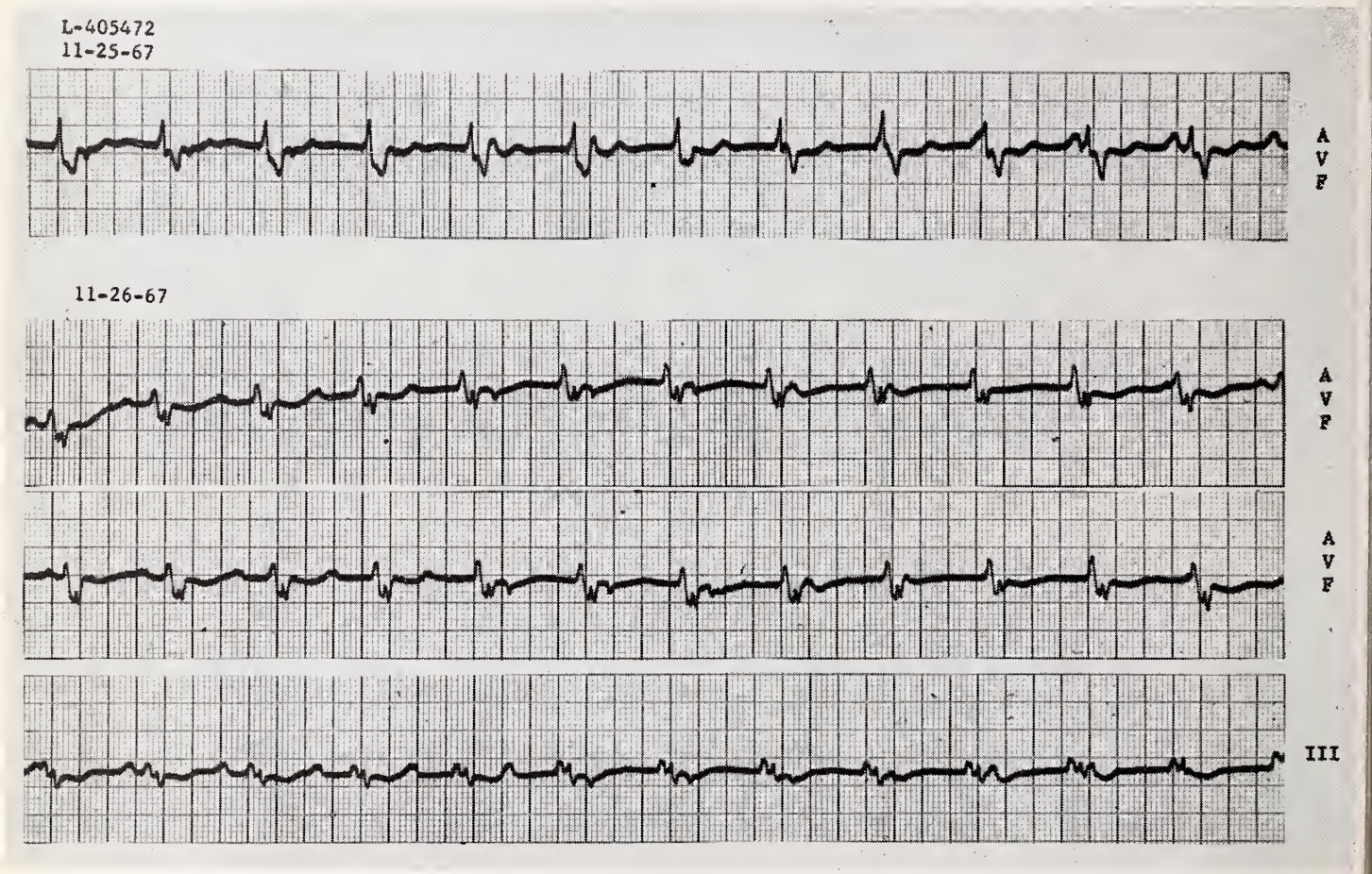

FIGURE 5

DEMONSTRATES a temporary transvenous endocardial pacemaker with normal retrograde conduction in the presence of complete forward block (unidirectional block). See text.

complete forward (A-V) block. The control strip (11-25-67) demonstrates retrograde P waves 0.16 sec. after the stimulus artifact. The fourth retrograde P wave is a blend of the purely retrograde, inverted P and the upright sinus P (see the end of the strip) and thus represents an atrial fusion. Failure to record retrograde conduction following the fifth driven QRS is due to refractoriness of the atria due to activation of the atria by the normal sinus P wave.

Similar phenomenon is recorded 11-26-67 with the exception that the mechanism responsible for the failure of retrograde conduction is twofold. It is due to refractoriness of the atrium per se secondary to activation by the S-A impulse (P wave) and penetration of the P wave into the junctional tissue making the latter refractory to any attempted retrograde conduction. Analysis of the upper strip of AVF makes this clear. Failure of retrograde conduction after the fourth driven complex is clearly due to penetration of the third P wave into the junctional system, while the failure of retrograde conduction following the eighth QRS is clearly due to refractoriness of the atrium secondary to normal excitation. Transmission of this P wave into the junctional tissue may also contribute to block of retrograde

conduction. The negative, retrograde P waves are clearly seen following the fifth, sixth and seventh QRS complex.

Figure 6 (MCGH-191153) represents a fixed rate epicardial pacemaker and illustrates a rare example of concealed V.P.S. The lower strip (V-5) demonstrates the normally functioning pacemaker with a stimulus to stimulus interval of 0.80 sec. Each stimulus artifact evokes a ventricular response. In the upper row (lead I) a ventricular bigeminy is present with every other stimulus falling during the refractory period of the V.P.S. and fails to elicit a ventricular response. In the second row (lead II) the failure of the third, fifth, seventh and ninth stimulus to elicit a response is surprising and can be explained by the presence of a concealed V.P.S. which resulted in refractoriness of the ventricle. Another, but extremely unlikely explanation, is that the mean vector of the V.P.S. is perpendicular to lead II axis and registers an isoelectric QRS in lead II.

Figure 7 (L-424273) demonstrates a transjugular, endocardial pacemaker with spontaneous ventricular complexes originating from or near the site of the pacemaker. In lead II the first QRS follows the stimulus artifact by a latent period of 0.04 sec. This QRS is followed by a V.P.S. having the exact morphology of the driven QRS, indicating that it originated at or near the site of the pacemaker. The next driven beat appears when expected, namely 0.68 sec. following the first stimulus artifact. The failure by the V.P.S. to block the second stimulus artifact from stimulating the ventricles classifies this V.P.S. as interpolated. A similar clear cut interpolation follows the seventh stimulus artifact in lead V-5.

In lead III and V-3, two or three consecutive interpolated V.P.S. are recorded giving the impression of ventricular tachycardia. However the stimulus artifact preceding the driven beats are easily identified, with a stimulus to stimulus interval of about 0.68 seconds.

Further evidence of the origin of the spontaneous beats at or near the site of the pacemaker is clearly demonstrated by the third from the right QRS in lead V-3. This particular complex is spontaneous (not preceded by a stimulus artifact) and its morphology being identical to the driven complexes indicates that it originates at or near the site of the pacemaker. In the last row (V-5) the early spontaneous activation of the third from the right QRS is followed by two consecutive automatic QRS complexes with a morphology identical to the driven beats. The stimulus artifact can be identified near the nadir of the downstroke of the first, in the S wave of the second and at the peak of the R wave of the third automatic complex.

Electrophysiologically, the artificial pacemaker either lowered the threshold for stimulation or increased the rate of diastolic depolarization of nearby specialized tissue and as a result converted latent into active dominant pacemakers.

A rapid run of aberrantly conducted complexes such as recorded in leads III and V-3 undoubtedly result in a transient drop of cardiac output and could conceivably induce Adams-Stokes disease. Furthermore, the stimulus artifact falling in the

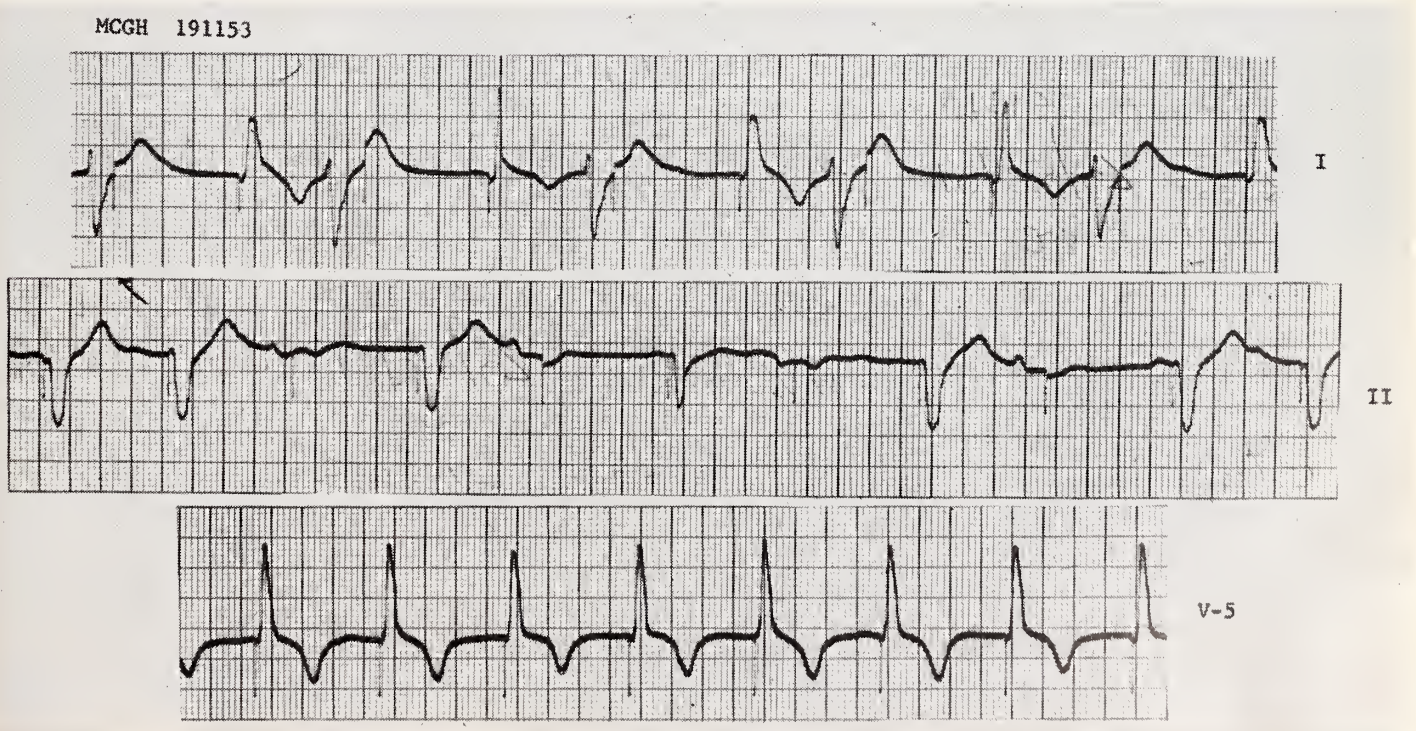

FIGURE 6

REPRESENTS a fixed rate epicardial pacemaker with concealed ventricular premature systoles. See text.

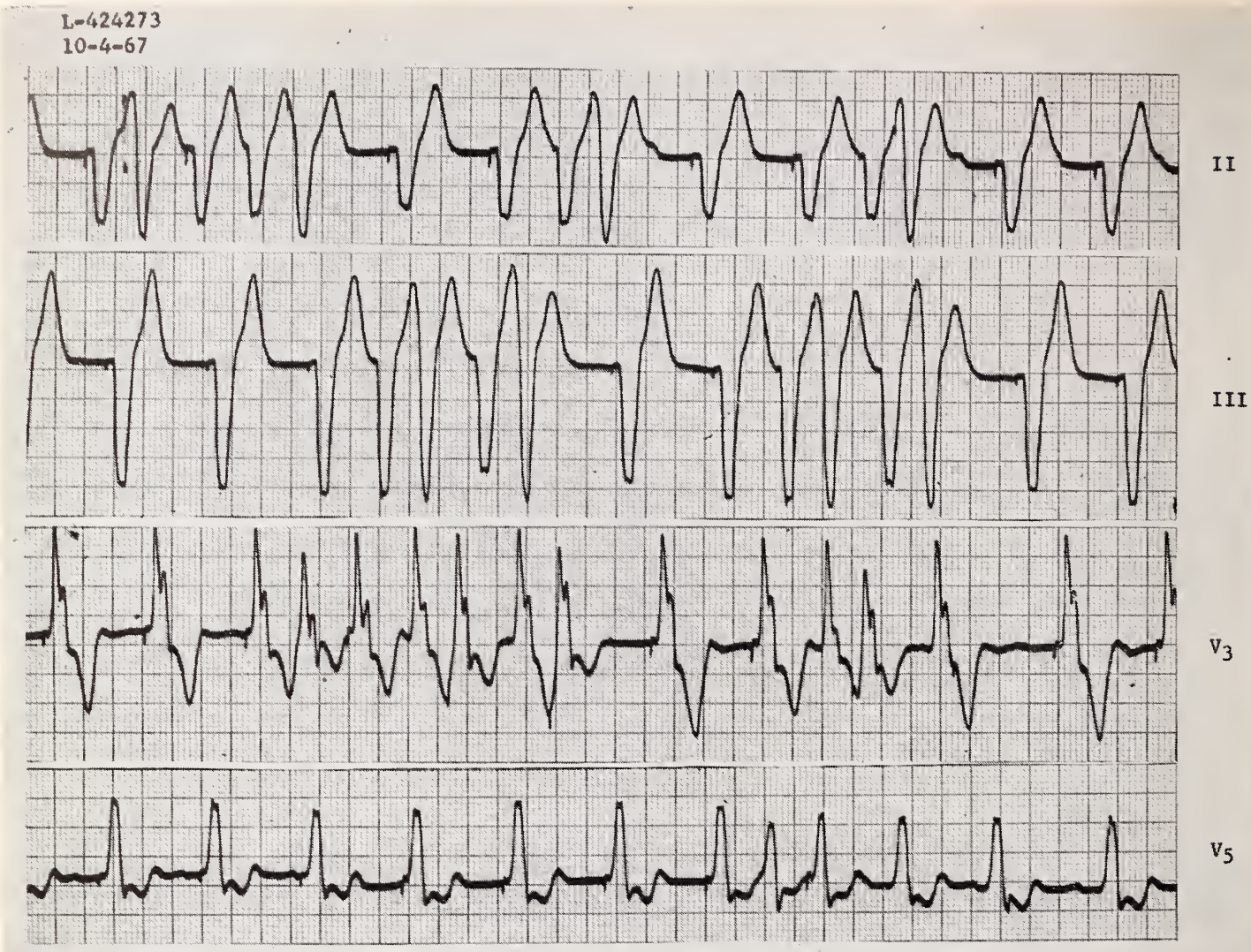

FIGURE 7

DEMONSTRATES a transjugular endocardial pacemaker with spontaneous ventricular complexes originating at or near the site of the pacemaker. See text.

course of the T wave may hit within the vulnerable phase and under the proper set of circumstances, result in ventricular fibrillation.

Figure 8 (L-387494) is an example of interplay between a temporary transvenous endocardial and an epicardial pacemaker. The upper strip (AVL) demonstrates an idioventricular rhythm with a rate of approximately 25 per minute and a malfunctioning pacemaker with a stimulus to stimulus interval of 0.64 sec. In the second and third rows (leads I, AVL) each QRS is triggered after an 0.04 sec. latent period by a transjugular pacemaker. The transjugular pacemaker "captures" and discharges the malfunctioning pacemaker after a latent period of 0.10 sec. It is possible that the malfunctioning pacemaker is actually "captured" by the QRS 0.06 sec. after its onset rather than by the transjugular pacemaker. The latter is demonstrated in Figure 9.

The bottom strip demonstrates the situation after the malfunctioning epicardial pacemaker has been replaced and the temporary transjugular pacemaker removed.

Figure 9 (L-423943) demonstrates dissociation between two pacemakers with "captures" of one pacemaker by another. The two pacemakers are a temporary endocardial transvenous and a demand epicardial. The demand pacemaker, similar to the one illustrated in Figure 2, is activated both by the pause and spontaneous excitation.

The top row shows a small upright stimulus artifact of the transjugular pacemaker which triggers, after a latent period of 0.04 sec., the epicardial demand pacemaker. The stimulus to stimulus interval is 0.70 sec. Following the seventh stimulus artifact, the rate of the transvenous pacemaker was gradually slowed. The eighth, ninth and tenth QRS are triggered not by the transvenous pacemaker but by the demand epicardial pacemaker after a "demand" interval of 0.82 sec. In other words

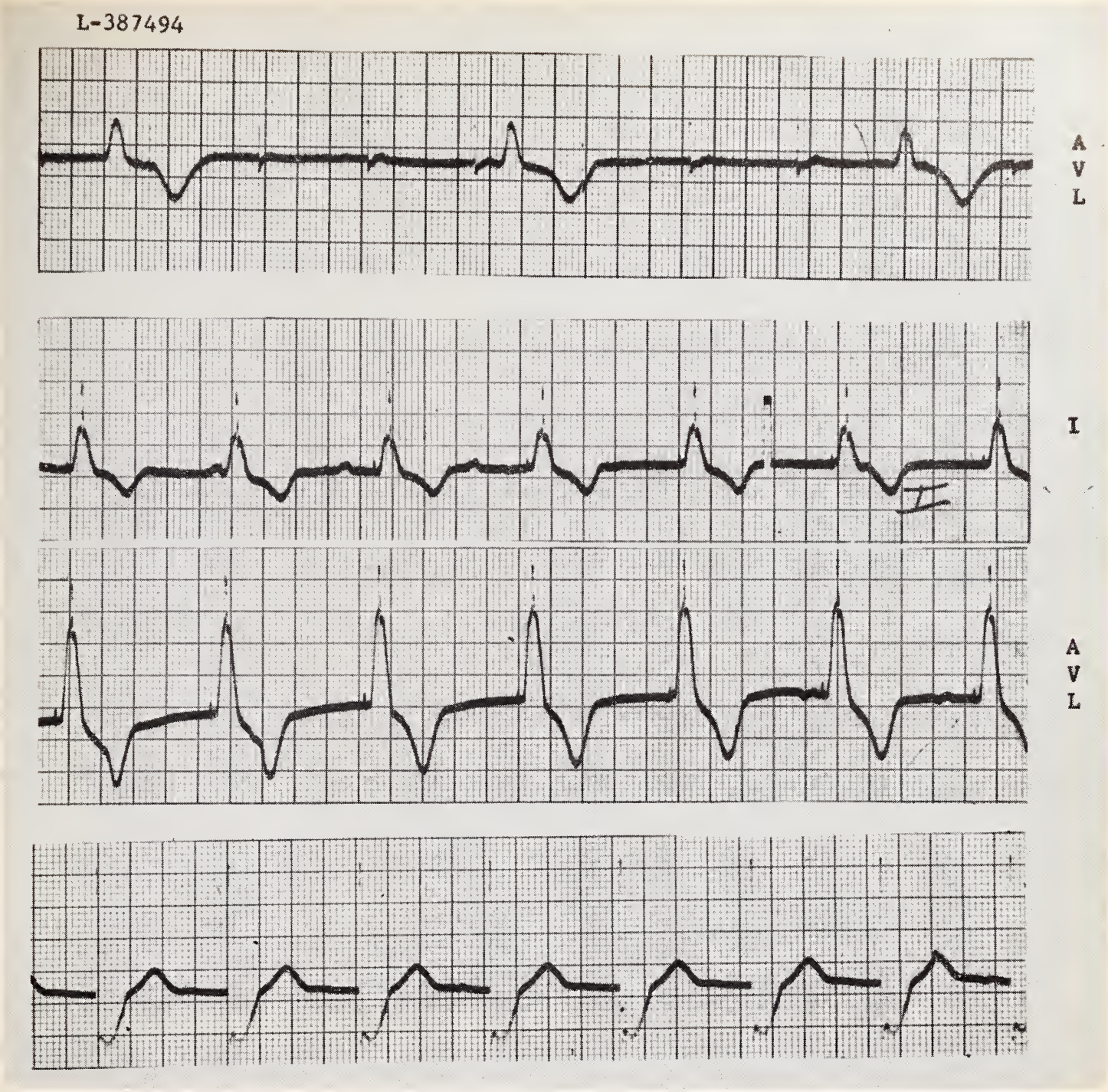

FIGURE 8

AN example of interplay between a temporary endocardial transvenous and an epicardial pacemaker. See text.

the predetermined rate of the demand pacemaker exceeded the now slowed rate of the endocardial pacemaker and controlled the cardiac rhythm. The stimuli generated by the endocardial pacemaker are clearly seen in the T wave of the ninth complex and following the T wave of the tenth complex. Since both of these stimuli fall within the refractory period of the epicardial pacemaker and of the QRS, they fail to "capture" or activate either the epicardial demand pacemaker or the ventricles. The next endocardial stimulus (eleventh) falls outside the refractory period of both the demand epicardial pacemaker and of the ventricles and "captures" both the epicardial pacemaker and the ventricles. A similar dissociation with captures is seen in the second row. The last two complexes in this row demonstrate acceleration of the rate of discharges of the transvenous pacemaker with resultant capture of the epicardial pacemaker.

The bottom strip was recorded after the removal of the temporary transjugular pacemaker and with the heart controlled by the epicardial demand pacemaker.

Summary

1. A select group of an ever enlarging variety of pacemaker induced

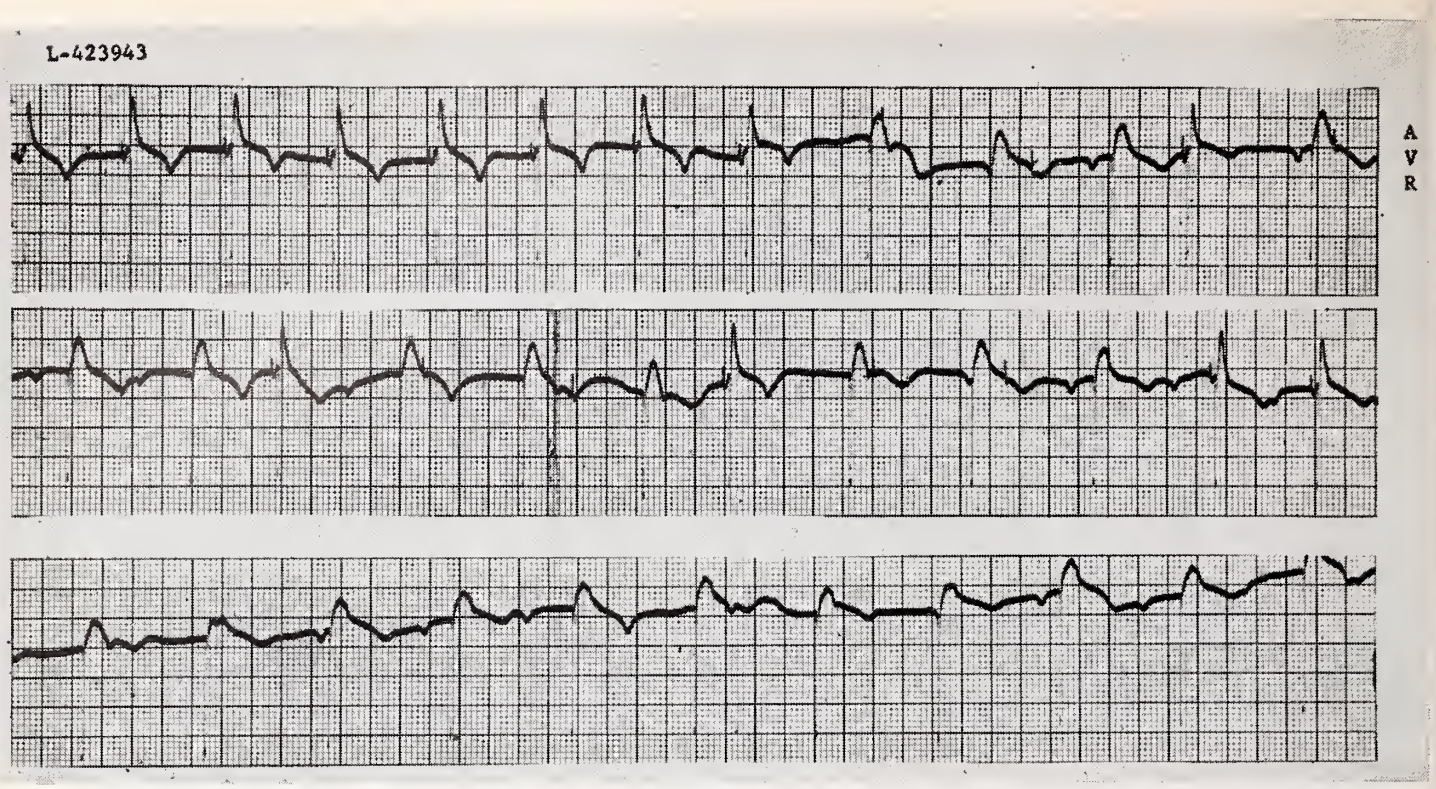

FIGURE 9
DEMONSTRATES dissociation with "captures" between temporary endocardial transvenous and epicardial demand pacemakers. See text.

iatrogenic cardiac arrhythmias is presented.

2. The problems of interpretation posed by the different types of pacemakers, the complicating spontaneous arrhythmias and the not infrequent use of more than one pacemaker are illustrated.

3. With the ever increasing number of patients whose lives depend on such pacemakers, the interpretation of the pacemaker ECG has become an extremely important and practical aspect of clinical electrocardiography. ◀

Dr. George S. Bond

Dr. George S. Bond, born in Richmond, Indiana in 1884, the son of a prominent physician, received his M.D. degree from the University of Michigan in 1908.

As assistant to Dr. Lewellyn F. Barker, Dr. Bond established a heart station at Johns Hopkins Hospital in 1910. This installation included an electrocardiograph, one of the first, if not the first, instruments in America. In 1914, the young cardiologist came to Indiana University School of Medicine as Assistant Professor of Medicine. His first assignment was to set up a heart station for Indiana University. In 1936 he was made Professor of Cardiology, a post he held until 1956.

For many years Dr. Bond lectured in cardiology and physical diagnosis. Many physicians who are graduates of Indiana University School of Medicine will recall the recordings of heart sounds presented on records made by Dr. Bond. He was the second president of the Indiana Heart Association and from 1957-1960 was a member of the Board of Directors of the American Heart Association. In 1967 he received the distinguished service award from the Indiana Heart Association.

Despite a physical handicap produced by a fracture of the femur, Dr. Bond continues in the active practice of medicine and maintains his interest in cardiology. Dr. George Bond, truly a pioneer cardiologist, we salute you!—Kenneth G. Kohlstaedt, M.D.

winter 1968

DORSEY Season

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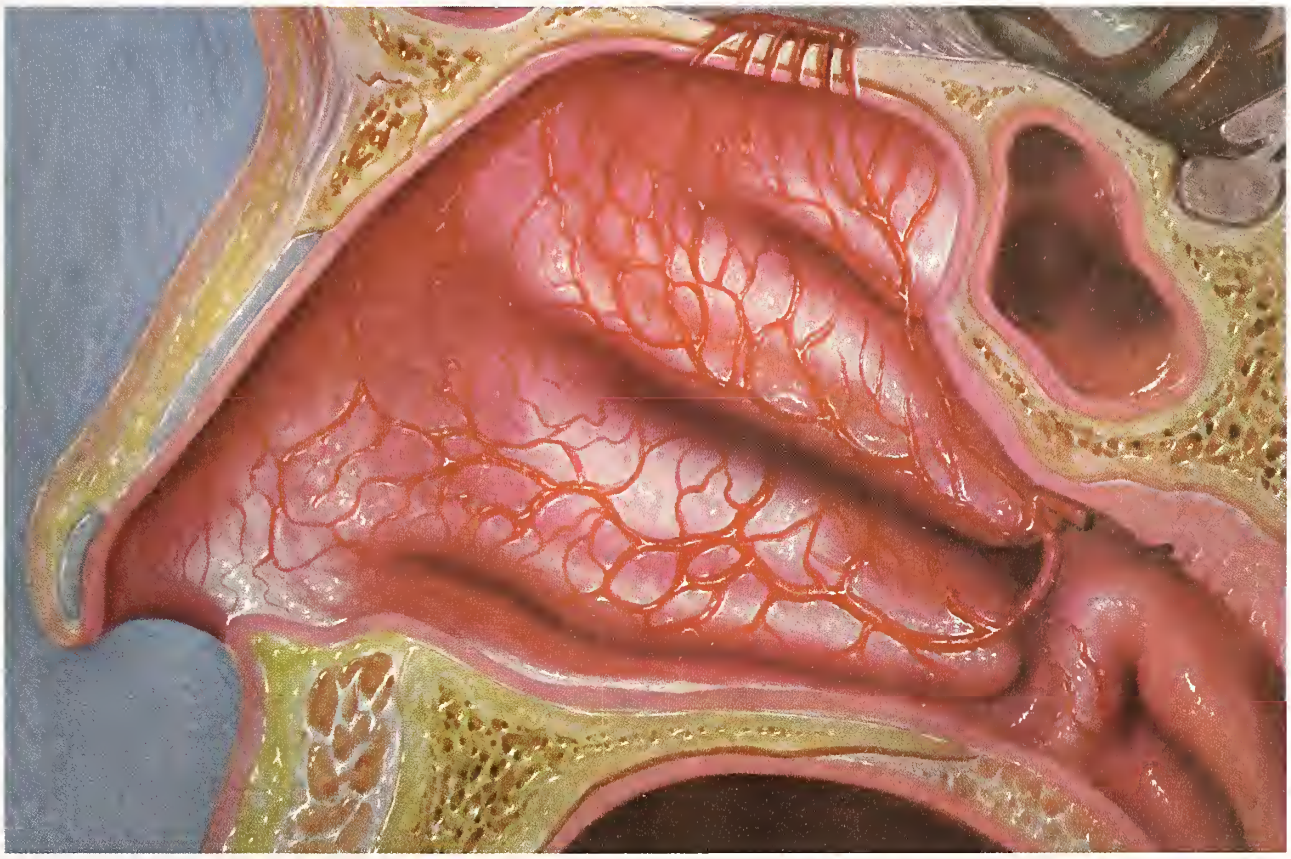


this issue: the cold in pregnancy...

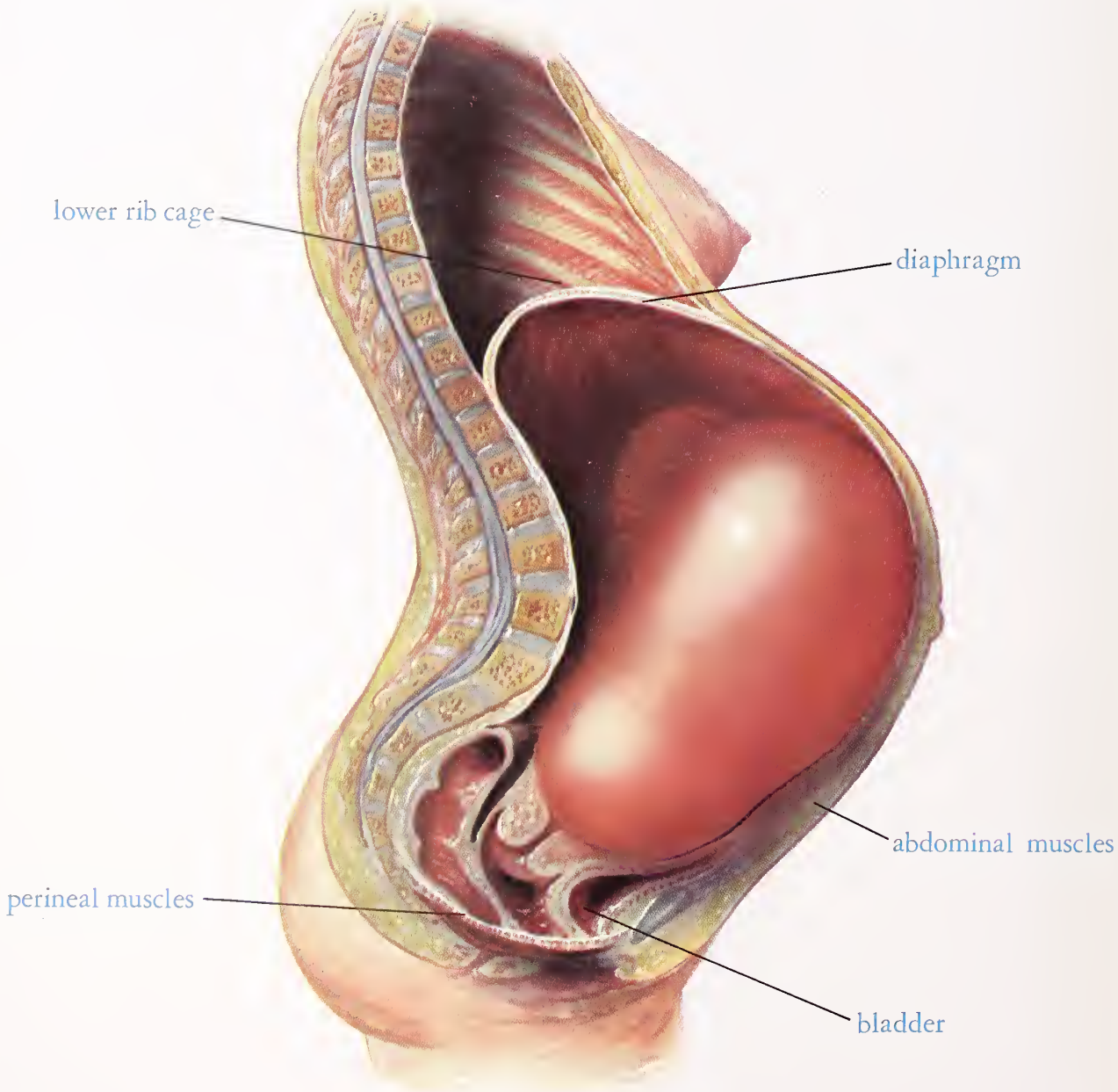
the cold in pregnancy

Frederick W. Goodrich, Jr., M.D.
Senior Obstetrician and Gynecologist, Lawrence and Memorial Hospital, New London, Connecticut

Since pregnancy and the common cold are both ubiquitous, it is not surprising that they often occur at the same time in the same patient. Incidence figures are hard to come by, but the chances are very good that any given pregnant woman will have a cold at some time during the nine months of her gestation. When she does, she will tell you that it is the worst cold she ever had. It seems to last longer and the symptoms are more distressing than they are in the non-pregnant.

For purposes of this discussion, the common cold is considered to be the well-known symptom complex which includes sore throat, stuffy nose, and a cough. Febrile states or extension of the disease process into the lower respiratory tree are not part of the common cold and will not be included in this discussion.

The clinical picture of a cold in pregnancy can be confused by a long-known physiological phenome-



non. Kiesselbach's area in the nose (on the anterior part of the nasal septum above the intermaxillary bone) becomes engorged, apparently due to hyperemia induced by the increased estrogen level which accompanies pregnancy. The amount of congestion can vary in degree from woman to woman. Some have very little congestion, others will have occasional nosebleeds from this area, still others will have symptomatic congestion to the degree that they will complain of having a "chronic" or constant cold.

Less well recognized is the occurrence of this type of hyperemia in any part of the nasopharyngeal mucosa, again in varying degree. Such swelling often produces a postnasal drip which, the patient will state, is present only when she is pregnant. Patients who do not have symptomatic congestion ordinarily, will find that when they do get a cold, the symptoms last much longer than those of a cold usually do. Occasionally, this hyperemia is responsible for closure of the medial end of the Eustachian tube; such patients will complain of "plugging" of the ears. Inspection of the ear drum will show a depression which confirms the presence of Eustachian closure rather than wax in the canal which is the patient's diagnosis. Symptoms related to this physiological congestion are more apt to occur in heavier smokers or those who have a history of allergic rhinitis, just as are the symptoms of the common cold. And when the cold does occur in pregnancy, the symptoms are worse because of the underlying congestion.

The pregnant woman with a cold is miserable for other reasons, dependent somewhat on her parity and the length of her gestation. As parity increases, so also does the relaxation of the abdominal and perineal musculature. The uterus, lying against a slack abdominal wall, and bearing down on relaxed perineal muscles, acts like a piston when the patient coughs, sneezes, or even blows her nose, pushing down on the bladder. Stress incontinence during colds is almost the rule.

As the length of gestation increases, so does the size of the uterus. As it grows, it pushes the abdominal contents above it and elevates the diaphragm. This results eventually in a lateral displacement of the lower rib cage, often to a point at which the patient will complain of soreness in this area. If such a

(Concluded on following page)

From a continuing study on nasal congestion...

timed to work while your patient does

A study begun in 1966 by the Department of Otolaryngology, Greater Baltimore Medical Center, has accumulated evidence that documents the effectiveness of Triaminic's timed-release action in the treatment of nasal congestion.

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patient has a cold, the coughing and sneezing will exaggerate this soreness. The diaphragmatic restriction caused by the enlarging uterus also makes breathing more difficult, particularly when the patient lies down. A cold compounds this difficulty.

Treating a cold in pregnancy requires two additional considerations. The patient should be told that the symptoms may last longer lest she become discouraged, and she should be reassured that the treatment will not damage the fetus. Although there are still some women who seem blissfully ignorant regarding matters of health (and these need to be cautioned not to take medication recommended by friends), most of our maternity patients are aware of the thalidomide tragedy. These women need constant reassurance that the symptoms of a cold can be treated, and that the medication is safe. Fortunately, many of the drugs which are of benefit have been in use long enough and widely enough so that such a statement can be offered. Occasionally one encounters a patient who is so anxious to avoid medication that she is extremely reluctant to take anything at all. Since cold is self-limited, it seems reasonable enough to give such a patient the choice and not to force drugs on her if she is obviously afraid of taking them.

The most distressing symptom of the common cold is the nasal congestion. This can be mitigated by the use of a decongestant which will help reduce the postnasal drip and the coughing caused by it. The kind of a cough which is described as a "tickling" in the throat and which is apt to occur when the patient goes to bed is usually due to nasopharyngeal congestion rather than inflammation in the lower respiratory tract.

There are many cough mixtures available. Most contain an antihistamine, a decongestant, and a cough "suppressant." Should cough suppression be desirable, it is important to remember not to use both a decongestant tablet and such a cough mixture as the patient would be getting a double dose of the decongestant. With some patients, the placebo effect of a cough syrup may be important and a liquid preparation might be substituted for an oral tablet.

For a sore throat, candy drops or lozenges at frequent intervals are soothing. It is not only unnecessary but unwise to use antibiotic lozenges or drops. The use of antibiotics in an uncomplicated cold is contraindicated and should be scrupulously avoided.

In summary, a cold in pregnancy is more severe and longer lasting. The treatment of the symptoms with local and systemic decongestants will make the patient more comfortable.

Apparently the cold is so common in pregnancy that it has received very little attention in the literature. References are almost non-existent and the few which are available add little to the common knowledge, are out-dated, or are not helpful. Thus the usual bibliography is not appended.

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How vital reserve increases advantages of prevention of complications.

Medical Problems After Open Heart Surgery

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OPEN HEART surgery is a challenging field. A successful open heart surgery team requires cooperation between surgeon, cardiologist, anesthesiologist and nurses and frequent usage so as to maintain skill and provide experience. Such has been the case at the Indiana University Medical Center and the result has been steady reduction in morbidity and mortality.

Because there still remains much that is empirical in the medical management of these patients, we felt it might be beneficial to report our experience derived from a large number of patients.

Preoperative Medical Care

Patients are admitted five to seven days before surgery to insure optimum compensation and to carry out baseline studies for reference should postoperative complications occur. Diuretics are discontinued on admission and digitalis is stopped three days preoperatively. If the patients have been on diuretics, they are given a potassium supplement of 50 mEq daily. This is increased proportionally if hypokalemia is present. It is well documented that patients who have been taking diuretics chronically develop depletion of total body potassium and this may be accentuated after cardiopulmonary bypass.[1,2] We have not noted any deleterious effect from discontinuing digitalis preoperatively and do not digitalize patients who have not been on the drug. We feel that good surgical technic and postoperative care are the best inotropic agents. Of course, when patients are admitted with rapid atrial fibrillation, extra doses of digitalis are given. There are some patients whose ventricular response to atrial fibrillation accelerates as the operative day approaches, probably due to apprehension. Unless congestive heart failure occurs because of the rapid rate, which is uncommon, we prefer to use sedation and reassurance rather than digitalis.

Renal and liver function tests are part of the routine evaluation and pulmonary function studies are performed when there is evidence of lung disease. Patients are instructed preoperatively in coughing, deep breathing and the use of an intermittent positive pressure machine. The necessity for their full cooperation is emphasized.

The psychological preparation of the patients is a most important facet. One cardiologist follows the patient from the time of admission. This gives the patient an opportunity to identify with one of the many physicians who will be participating in his care. Length of stay in the intensive care unit, the use of monitoring equipment, ventilation devices, indwelling catheters, chest tubes and the problem of pain are clarified. Questions about the chances of immediate survival often arise. This is a difficult problem and requires tact on the physician's part. It is important to sense to what extent the patient really wants and can accept a frank discussion of the subject.

Postoperative Care

The major problems which complicate the postoperative course are (1) pulmonary, most often atelectasis, (2) arrhythmias and (3) the "low output syndrome."[3]

Complications have a way of following one another. The reserve of these patients is often so poor that one single complication will provide ground for another and this chain of events may ultimately lead to their demise. On the other hand, a patient who is skillfully managed during the postoperative period may have an uneventful course, regardless of age or preoperative disability. For that reason, the postoperative care is directed toward prevention of complications.

Ventilatory Problems: The choice of the proper time for removal of the endotracheal tube and discontinuance of assisted ventilation is most important. The high energy cost of breathing in critically ill patients is well documented[4] and it is important to allow the patient to take on this burden only when he is able. Otherwise, exhaustion, hypoxia, atelectasis

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and acidosis evoke a vicious circle from which recovery may be impossible.

If the patient has an adequate resting minute respiratory volume and is able to double it with maximal breathing, assisted ventilation is discontinued and the patient observed with frequent blood gas determination. When the ability to ventilate unassisted has been demonstrated, an ultrasonic nebulizer with a mixture of oxygen adjusted to obtain an adequate arterial PO_2 is utilized. Vigorous chest physiotherapy and intermittent positive pressure breathing to keep the tracheobronchial tree free of mucous plugs is instituted. Using this approach, atelectasis has ceased to be a major complication. It is still seen, but is usually confined to relatively small areas involving the basilar lobes, more often the left. A graded program is followed to handle continuing atelectasis. If the patient is coughing poorly, a cough tube is inserted and saline injected frequently through it to induce coughing. This technic plus intensified physiotherapy will often clear the atelectasis. In other cases when the involvement is more extensive and the patient demonstrates hypoxia, bronchoscopy is performed. If the patient continues to be too ill to carry out pulmonary toilette and if it is seen that he will require assisted ventilation for more than 48 hours, a tracheostomy is performed. Tracheostomies are not performed prophylactically as no benefit has been observed from preoperative tracheostomy as compared with tracheostomies done when the need arises.[5]

Arrhythmias: Arrhythmias do create a problem, but can often be alleviated if thought is given to prevention. Correction of hypokalemia, avoidance of digitalis excess and good pulmonary care are important in this respect.

Nodal rhythm with a rate of 60 to 80 beats/minute is the most common arrhythmia. This is a slower rate than would be expected as physiological adaptation to the demands of the early postoperative period, and may permit the appearance of ectopic ventricular foci because of the long diastolic period. In some centers, isoproterenol is given routinely to increase the rate and improve myocardial contractility in this situation. We have, however, only rarely noted any problems with this arrhythmia and usually allow it to continue untreated although isoproterenol is required in an occasional patient. During the first postoperative day, the pacemaker usually shifts back to the sinus node, often with an intermediate period of interference dissociation.

Atrial fibrillation is the next most common arrhythmia as it is a usual feature of mitral disease. The ventricular response may be slow postoperatively even when it has been rapid preoperatively. Fever, pain and anxiety will increase the ventricular response. Pulmonary complications can accelerate the rate significantly or initiate paroxysmal atrial fibrillation in those previously in sinus rhythm.

Thus, when considering therapy for rapid atrial fibrillation, whether paroxysmal or sudden acceleration of chronic fibrillation, we look first for a contributing factor, particularly atelectasis and hypoxia. Correction of these conditions is the treatment of choice and generally is effective. Digitalis may not be effective in these circumstances and is hazardous for digitalis toxicity can occur before any appreciable slowing is achieved.[6,7]

If rapid atrial fibrillation is present and contributing factors have been ruled out, digitalis may be given cautiously. Atrial fibrillation with a ventricular response of less than 120 per minute is well tolerated and is usually managed by starting the preoperative digitalis maintainance dose.

Paroxysmal atrial fibrillation not related to pulmonary problems is treated with D/C shock, followed by rapid digitalization and quinidine because of the tendency for this arrhythmia to recur.

Frequent multiple premature ventricular beats or multifocal ventricular beats are seen less frequently. Increased ventricular automaticity may be initiated by multiple factors and it is, thus, important to attempt to identify possible etiologies before instituting therapy. For example, if they are associated with a slow nodal rhythm, acceleration of the basic rhythm may quench the focus physiologically. Premature ventricular beats or multifocal ventricular complexes may also be signs of depressed myocardial function and improvement in the contractile state will result in their disappearance. The so-called "primary" ventricular arrhythmias or those not associated with other evidences of dysfunction are treated nonspecifically with lidocaine or quinidine.

Paroxysmal atrial tachycardia and atrial flutter are much less common and are treated with D/C shock. If they recur, the patients are digitalized if not already on digitalis.

Ventricular tachycardia and fibrillation are now rare events and are treated also with D/C shock.

Complete heart block has been reported to be a frequent complication during repairs of tetralogy of Fallot, and ventricular septal defects. Improvement in surgical technic has reduced the incidence to a minimum. It is seen occasionally during aortic valve replacement for calcific aortic stenosis if calcium is removed too vigorously in the area of the noncoronary sinus.[8] Treatment consists of insertion of a temporary pacemaker. If the block does not disappear within a month, a permanent pacemaker will be required.

Low Output Syndrome: This is a generic term for the clinical picture of peripheral vasoconstriction and evidence of poor organ perfusion as manifested by a decreasing urinary output as measured every hour. Hy-

potension may or may not be present.

The blood volume studies reported elsewhere in this issue have focused our attention on the frequency of hypovolemia as the etiology for the low output state. Other investigators have also demonstrated "concealed hypovolemia" and consider it a frequent determinant of the low output syndrome.[9-11] For this reason, preventatively, most centers transfuse patients postoperatively with blood to maintain a left atrial pressure of 18 to 29 mm Hg. when a left atrial catheter is in place. This will often require 500 to 1000 cc of blood above measured losses from chest tube drainage. If a central venous catheter is being utilized, similar pressure should be maintained on the right side of the heart.

If the low cardiac output state persists despite assurances of an adequate filling pressure, myocardial insufficiency is assumed to exist. Myocardial insufficiency is treated with isoproterenol as the inotropic agent.[12] It is preferred to digitalis because it can be titrated. The isoproterenol is prepared as a solution of 2-5 mg in 500 ml of normal saline and water and is infused through a microdrip at a rate sufficient to maintain the blood pressure above 90 mm Hg. systolic. Constant monitoring must be maintained to avoid ventricular arrhythmias.

Using this approach, the low output state has become a rarity at the Indiana University Medical Center reflecting increasing experience and proficiency of the open heart surgery team.

A minority of patients may have other etiologies for low output syndrome which are uncorrectable. Residual valvular lesions after mitral valve replacement such as aortic insufficiency or tricuspid insufficiency can compromise immediate survival and late results.[13,14] These problems can best be avoided by careful preoperative evaluation and decisions regarding the necessity for one, two or three valve replacements made at this time. In addition, in some cases, it is often impossible to be certain that valvular disease is primarily responsible for the clinical picture, rather than associated coronary artery disease or irreversible myocardial damage. Unfortunately, an irreversible low output syndrome postoperatively and a poor result may indicate that valvular disease played a secondary role.[15] Other causes for an irreversible condition include: thrombus formation on the valve,[16] myocardial infarction,[17] calcium or air embolus to cerebrum or leak around prosthetic valve.

Summary

The medical problems associated with open heart surgery are discussed from the experience gained at the Indiana University Medical Center over the past two years. The philosophy for postoperative management is that of prevention of complications.

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Differentiation of third and fourth heart sounds from other sounds and appreciation of their significance is important.

Gallop Rhythm of the Heart: Current Concepts

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SINCE Charcelay[1] in 1838 first described the phenomenon of gallop rhythm, and Potain[2] further characterized it and applied its present name in 1875, much refinement of its definition, mechanism and clinical significance has come about. Gallop rhythm may simply be defined as the rhythm produced in abnormal states by extra sounds which appear in ventricular diastole and which occur during periods of rapid ventricular expansion or elongation. There are specifically two diastolic periods when this occurs: 1) during early ventricular diastole, shortly after the mitral valve has opened, at which time ventricular filling is probably at its maximum, and 2) with late ventricular filling in response to atrial contraction.[3]

The sounds produced during early ventricular diastole are broadly termed "third heart sounds", or if associated with a failing or abnormal left ventricle, are often called "protodiastolic gallop sounds." When associated with atrial contraction, they are generally called "fourth heart sounds", and when used to designate specifically an abnormal state, they are often referred to as "presystolic" or "atrial" gallop sounds. When the third and fourth sounds are superimposed upon each other, one intense sound results and is often termed "summation" gallop.

Extra sounds occurring during ventricular systole are no longer considered as gallop sounds.[4]

Mechanism of Production and Characteristics

Third heart sound: After the mitral valve opens in early diastole, the ventricle begins to fill rapidly. With this filling, the ventricle begins to elongate rapidly, causing the apex of the left ventricle to move outward and the mitral valve ring to move backward and upward. The outward motion of the apex is shown in Figure 1, taken from a normal youth with a physiological third heart sound. This early rapid elongation stops abruptly in most individuals. The third heart sound, when present, coincides exactly with the sudden cessation of the outward motion of the apex. The cause of this sudden cessation is believed to be abrupt tension on the chordae tendineae and mitral valve leaflets as the ventricular elongation exceeds the length of these structures.[5,6] The third heart sound, which is produced at this time, is also believed to be produced by this abrupt tension of these structures, setting up sound vibrations in them and the surrounding milieu.

Although these statements pertain to the third heart sound which originates in the left ventricle — by far the most common type — such sounds may occasionally emanate from the right ventricle. In this latter instance, the rapid early expansion in the right ventricle would account for the sound.

The older theory that third heart sounds are produced by tension on the ventricular wall (or "overdistention") has largely been abandoned for the following reasons: firstly, the left ventricular pressure is relatively low — below that in the left atrium — at the time of the sound's production, indicating that tension placed upon the ventricular wall is not yet excessive.[5,7] Secondly, the ventricular chamber is still capable of further diastolic enlargement and filling after the third sound.[5,8] Thirdly, it has been experimentally shown that the chordae and mitral valve leaflets are capable of producing sound, whereas the ventricular myocardium is not.[9]

The fourth heart sound probably has the same origin as described for the third heart sound, but in this instance, the rapid ventricular elongation arises in response to ventricular filling induced in late diastole by atrial contraction.

Both third and fourth heart sounds are extremely low in frequency (pitch), usually falling between 20 and 50 cycles per second. The third heart sound follows aortic closure by an average of 0.15 second (0.10 to 0.20 second) and the fourth sound occurs almost simultaneously with atrial contraction.

Clinical Significance

The third heart sound may be seen in both the normal and diseased heart, usually emanating from the left ventricle. Its auscultatory and graphic features are basically the same, regardless of the cause. When this sound is encountered as an expression of the normal state, the subject is young (under 40 years of age) and has no associated cardiac symptoms or signs, such as dyspnea, orthopnea or cardiomegaly. On the other hand, if this sound is heard in an elderly

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patient — and particularly if there are other abnormal cardiac findings — it is arbitrarily considered as abnormal, or usually designated as a "protodiastolic gallop" or "ventricular gallop" sound. However, in this situation, one may also use the more general term, third heart sound, particularly if he wishes to be noncommittal as to the presence of serious disease.

Uncommonly, third heart sounds may originate in the right ventricle, and in such situations, probably always indicate disease or strain placed upon the right heart.

The presence of a third heart sound implies free flow (usually rapid) of blood into a ventricle which is supple and capable of rapid expansion in the wake of the in-rushing blood. Because of these broad conditions, this sound may be seen in a host of clinical states, besides in the normal individual. We prefer to group these conditions under four headings: 1) Normal individuals (physiologic third heart sound), 2) increased ventricular filling with high cardiac output states (i.e., fever, exercise, etc.), 3) increased ventricular filling with normal or low cardiac output (i.e., mitral or aortic insufficiency and complete heart block), and 4) ventricular dilatation and failure from any cause.

From the list above, one can readily appreciate that the third heart sound does not necessarily signify congestive heart failure, for this holds for only group 4. Simple inspection of this list indicates the need for careful assessment of the entire clinical picture before one comes to a final conclusion regarding the cause of a third heart sound in a given patient. Usually, however, the distinction is fairly simple, for the patients tend to fall clearly into one or another category. Hence, one has little difficulty in recognizing that the early diastolic sound in the active youth with normal clinical findings is, in reality, a physiologic third heart sound of no pathologic significance.

By the same token, it is usually quite obvious that such a sound in a dyspneic, orthopneic, elderly patient with evidence of cardiac enlargement is, almost invariably, a "protodiastolic gallop" sound and a manifestation of heart failure. On the other hand, the finding of a third heart sound may be an early and important sign in the recognition of latent or minimal heart failure. For example, this sound may be discovered by careful auscultation commonly in the early days following a myocardial infarction and may be the only sign that the patient is in need of digitalis, salt restriction, etc. Or, in the same situation, one may hear moist, basilar rales which could signify either pneumonia or congestive failure. The presence of a gallop sound would alert the clinician to the probability of the latter diagnosis.

The clinical significance of the third heart sound is usually less clear in association with conditions causing increased quantity of ventricular filling (groups 2 and 3), such as that seen in mitral insufficiency, anemia, fever, etc. In this instance, congestive heart failure need not necessarily be present. Cardiac therapy is, therefore, usually indicated only if other associated signs and symptoms of congestive failure are present. Treatment of an underlying condition, (such as control of thyrotoxicosis) when possible, will usually result in the disappearance of the third heart sound.

When seen in conjunction with myocardial decompensation, the third heart sound generally signifies a poorer prognosis than does the fourth sound.[10] However, exceptions are common, inasmuch as the outlook varies with the underlying disease, adequacy of previous cardiotherapy and diligence with which this sound is sought in a given case. There is evidence that the louder the gallop, the poorer the prognosis.[10] With regard to this latter point, it is my impression that these sounds, when soft, are frequently overlooked, and that with proper therapy, many such patients may survive for relatively long periods.

In mitral stenosis, left ventricular diastolic filling is impaired and usually no third (or fourth) sounds are heard, unless complicating diseases are present or unless the stenosis is extremely mild. Complications which potentially can produce third sounds are mitral insufficiency, or right ventricular failure with the resultant right ventricular gallop sounds.

A sound very similar to the third heart sound is commonly observed in constrictive pericardial disease and is termed the "pericardial knock." Whether or not it should be classified as a form of third heart sound is problematic. Its recognition and differentiation from other types of early diastolic sounds is important and will be dealt with in the next section.

Fourth Heart Sound

In contrast to the third sound, the fourth heart sound is almost never heard in normal individuals. The fourth sound usually originates within the left ventricle in response to a forceful left atrial contraction. The left atrium beats forcefully because of increased resistance to filling on the part of the left ventricle, i.e., elevation of left ventricular end-diastolic pressure. Although left ventricular diastolic pressure is raised when the left ventricle fails, the fourth heart sound is more often heard in association with a non-dilated, non-failing heart.[11] The reason for this is as follows: raised diastolic filling pressure may be seen in the left ventricle either with dilatation and failure of this chamber or in a situation in which the ventricle becomes "stiffened", receiving a normal amount of blood in diastole with an excessive build up of pressure. In this latter situation, the internal diameter of the ventricle remains relatively small in diastole. Atrial contraction becomes very forceful, and a

relatively great change in ventricular diastolic volume takes place in response to this atrial contraction. This results in a swift, relatively large motion of the apex downward and outward in response to atrial contraction. Such motion has sufficient velocity to evoke a sound, as the internal structures of the ventricle quickly tauten. By contrast, a flabby, dilated, failing ventricle contains a large end-diastolic residual volume of blood. Under these circumstances, even a forceful and voluminous atrial contraction may not bring about a very great percentage change in ventricular volume and diameter, and, therefore, the ventricular motion resulting from atrial contraction may not be sufficiently rapid or great to elicit audible vibrations.

When atrioventricular conduction is delayed, as in various degrees of heart block, an audible sound in response to atrial contraction may become manifest. As mentioned previously, in the normal individual, no fourth sound is heard, partly because any potential sound resulting from atrial contraction falls very close to the normally dominant first heart sound. However, moving this soft atrial sound away from the first heart sound, as in AV block, allows it to be appreciated by the ear as a discrete sound.

In general, therefore, it may be concluded that in the absence of heart block, the presence of a fourth heart sound indicates elevation of left ventricular end-diastolic pressure, but not necessarily congestive failure. Moreover, this sound usually indicates a "stiffened" or poorly distensible ventricle. Such a condition of the ventricular myocardium can arise from several causes: Hypertrophy of the myocardium, particularly in response to a pressure load, is probably the most common cause. Systemic vascular hypertension and aortic stenosis are often responsible. Fibrosis or infiltration of the ventricular wall may also bring about this condition of the myocardium, as might be seen in ischemic heart disease or cardiac amyloidosis. Ischemia of the myocardium might also produce a "stiffening" of the left ventricle which often can be brought to light only during periods of stress or exercise. It is well recognized that during attacks of angina pectoris or myocardial infarction, an atrial gallop sound may appear transiently, and is an important confirmatory sign of these disorders.

In general, the fourth sound per se does not necessarily indicate a poor prognosis;[10,11] the outlook in such situations depends more upon the nature and severity of the underlying disease.

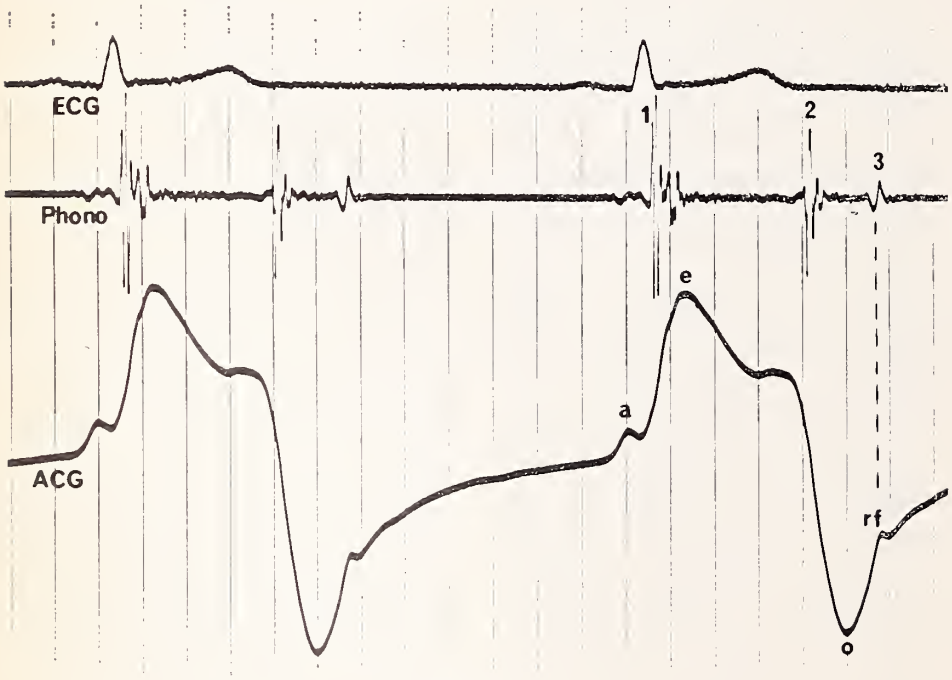

FIGURE 1

NORMAL male with third heart sound. The phonocardiogram (phono), taken at the apex, shows a low-frequency third sound (3) beginning 0.15 second after the second heart sound (2). The apexcardiogram (ACG) displays the motion of the heart over the apex, corresponding to what is felt with the examining hand. Upward deflections of this tracing represent outward motion of the apex, and downward deflections represent retraction of this region. One should note that following the opening of the mitral valve (0), there is a rapid outward motion of the apex, termed the "rapid filling wave" (rf) which reflects early rapid filling of the left ventricle. This wave is halted suddenly at the time of the third sound. Note also that there is a small outward motion of the apex tracing (a) in response to atrial contraction which occurs simultaneous with a few low-frequency vibrations in the phono. These latter vibrations were not audible, but indicate a faint fourth heart sound. (Time lines = 0.1 second.)

Clinical Recognition of Gallop Rhythm

Gallop sounds, being extremely low in pitch and usually soft, are frequently overlooked at the bedside. They are best listened for with the use of the bell pickup device of the stethoscope held gently over the maximal apical impulse. The left lateral decubitus position is most satisfactory. Any maneuver which will enhance venous return to the heart will tend to intensify these sounds. For this reason, the recumbent position is superior to sitting or standing. Further enhancement of venous return may be gained by raising of the legs or by exercise, and these maneuvers will sometimes clarify the presence of a sound which was previously questionable.

The study of apical motion by sight and palpation is often of critical value in the recognition of gallop sounds. Palpation is usually the most rewarding and is best accomplished with the palmar aspect of the examiner's fingers held firmly over the point of maximal apical impulse with the patient in the left lateral decubitus position. Normally, one feels only one expansile pulsation with each ventricular systole (Figure 1).

If a third heart sound is present, a quick early diastolic expansion will be felt which is suddenly arrested (Figures 1, 2, 4). In the presence of a fourth heart sound, one will feel a short presystolic expansile motion (Figures 3, 4). The timing of these extra motions may be accomplished by simultaneous palpation of the carotid pulse. Another aid in timing is to listen to apical sounds with the stethoscope placed gently on the apex and to watch the motions of the stethoscope at the same time. The stethoscope will move outward at the time of the extra sounds, and one can note the relationship between the extra motion and the first and second heart sounds. With careful examination of the apical motion, one should be able to detect extra expansions in nearly every patient in whom pathologic third or fourth heart sounds are present; indeed, these motions are often present even when the sounds are not audible. On the other hand, one should be extremely circumspect in calling a given sound a gallop sound if he is unable to detect one or more of these extra pulsations.

Recognition of the fourth heart sound and differentiation of this sound from a split first heart sound is an important problem which frequently arises at the bedside. Frequently the second component of a split first sound is, in reality, an ejection sound (click), resulting from rapid ejection of blood into the pulmonary artery or aorta. Probably the single most important step in differentiation is palpation over the apex as described previously. The presence of presystolic expansion often is decisive in ascertaining the presence of the fourth heart sound. Additional aids in this differentiation are as follows: the fourth sound is usually heard only at the apex whereas splitting of the first sound (or ejection sound) radiates more widely, usually being heard well at both apex and left sternal border. When the patient assumes the upright

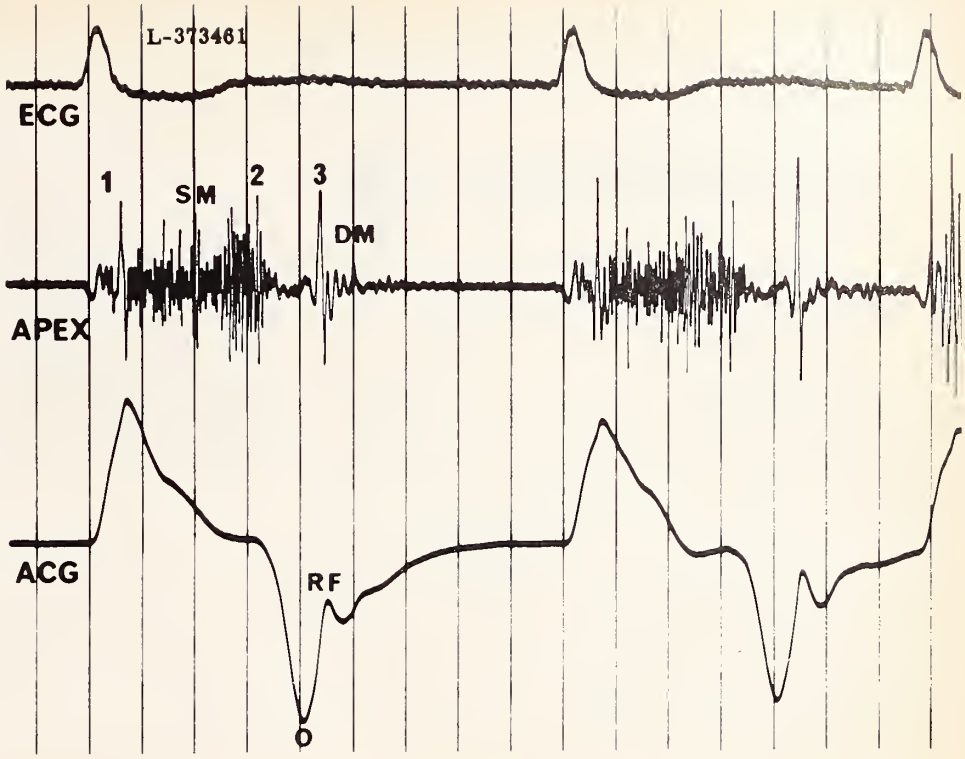

FIGURE 2

THIRD heart sound with mitral insufficiency. The third heart sound (3) is seen at the apex, and is followed by a short diastolic rumble (DM), both of which indicate a large rush of blood into the left ventricle from the left atrium early in diastole. The ACG shows a large rapid filling wave (rf) and overshoot, synchronizing with the third sound. The long systolic murmur (SM) of mitral insufficiency is clearly seen. (Time lines = 0.1 second.)

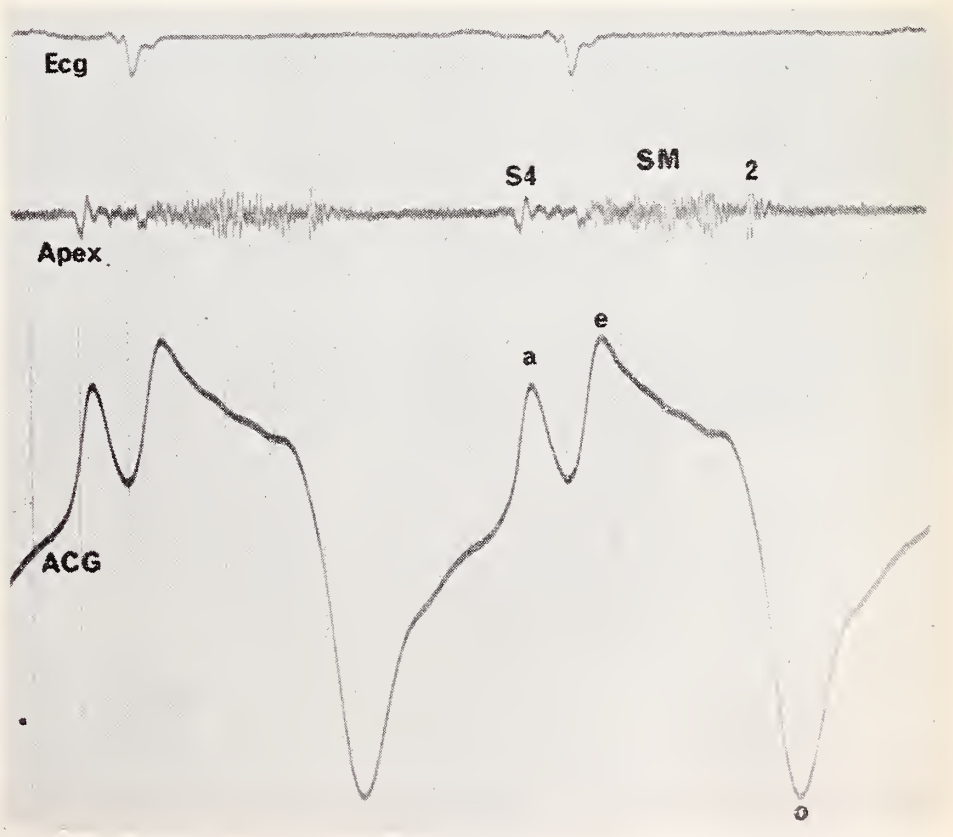

FIGURE 3

FOURTH heart sound in aortic stenosis, severe. The fourth sound (S_4) is seen at the apex and coincides with a large "a" wave in the ACG. (Time lines = 0.1 second.)

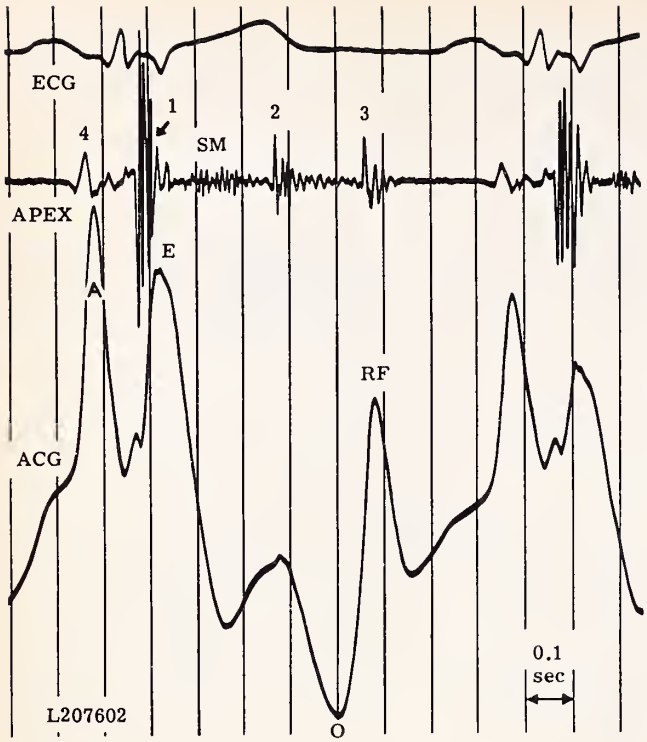

FIGURE 4

THIRD and fourth heart sounds in patient with diffuse myocardiopathy, unknown cause. The apex phono clearly shows all sounds. Note the tremendous enlargement of both A and RF waves in the ACG, coinciding with the gallop sounds.

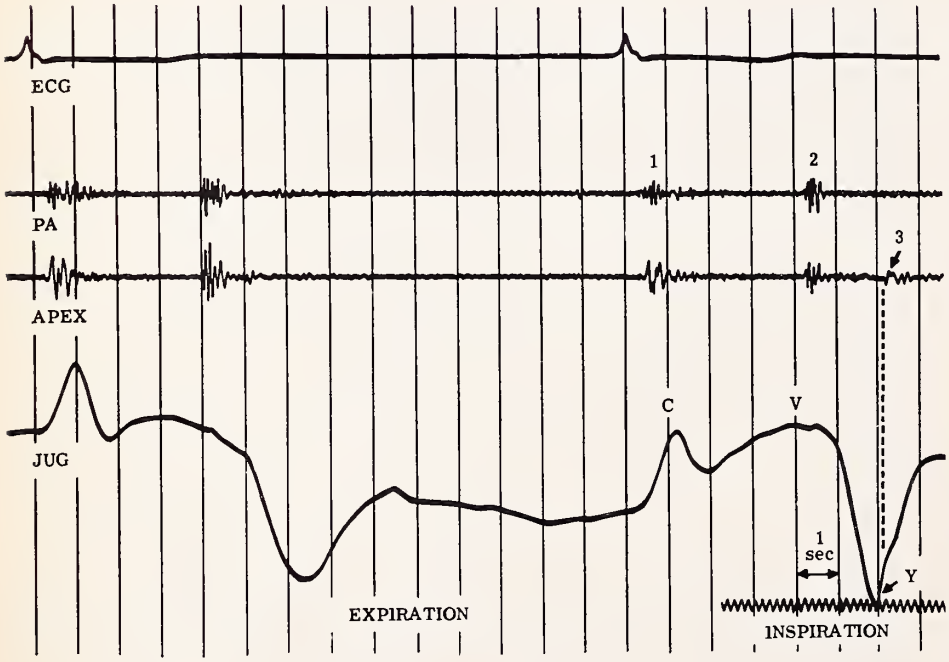

FIGURE 5

RIGHT ventricular third heart sound resulting from severe rheumatic heart disease and right ventricular failure. The third heart sound (3) is brought out by inspiration (right side of tracing). Tricuspid insufficiency was also present in this patient, as shown by the systolic wave of the jugular pulse (JUG).

posture, the fourth heart sound tends to diminish in intensity whereas the ejection sound becomes more manifest. Finally, the fourth heart sound is a dull, low-frequency, "thud", while the split first sound is a combination of two higher frequency "snappier", or sharper, sounds.

It is also important to try to differentiate from which side of the heart a given gallop sound is emanating. Gallops arising from the left heart are usually heard best over the apex, are usually associated with increased apical motion of the character discussed above, and do not increase with inspiration. On the other hand, gallops originating from the right heart are heard best at the lower left sternal border in association with active outward motion felt at this area, and they tend to increase during inspiration (Figure 5), owing to the enhancement of filling of the right ventricle as the intrathoracic pressure drops during this phase of respiration. Atrial gallops from the right heart are often associated with large jugular venous "a" waves (Figure 6).

Recognition of the early diastolic sound (pericardial knock) of constrictive pericarditis (Figure 7) is extremely important, and this sound must be differentiated from the third heart sound. The pericardial sound tends to be slightly sharper in quality than the third heart sound, tends to radiate more widely, particularly toward the lower left sternal border and follows the second sound by a slightly shorter interval than the third sound.[12] Despite these differences, the auscultatory characteristics of the pericardial sound may be indistinguishable from the third sound, and one must then resort to associated signs. Study of the precordial pulsations is extremely helpful in this differentiation, for in constrictive pericarditis, the apex moves inward during systole (instead of the usual expansion), followed by a rapid early diastolic outward movement (Figure 8). Palpation of the carotid

pulse may be necessary for accurate timing of these events, particularly if tachycardia is present. Study of the jugular pulsations is also of considerable aid in the diagnosis of pericardial constriction, for one can usually observe a deep Y descent followed by a rapid rise to an early plateau, (Figure 7). This phenomenon can be appreciated at the bedside as a darting transient collapse of the veins shortly after the second heart sound. This pulsation can usually best be seen with the subject in a partially or wholly upright position. Less commonly helpful is the so-called "Kussmaul sign", a tendency for the neck veins to expand during inspiration (normally they collapse). Pulsus paradoxus is another helpful ancillary sign, tending to indicate pericardial disease.

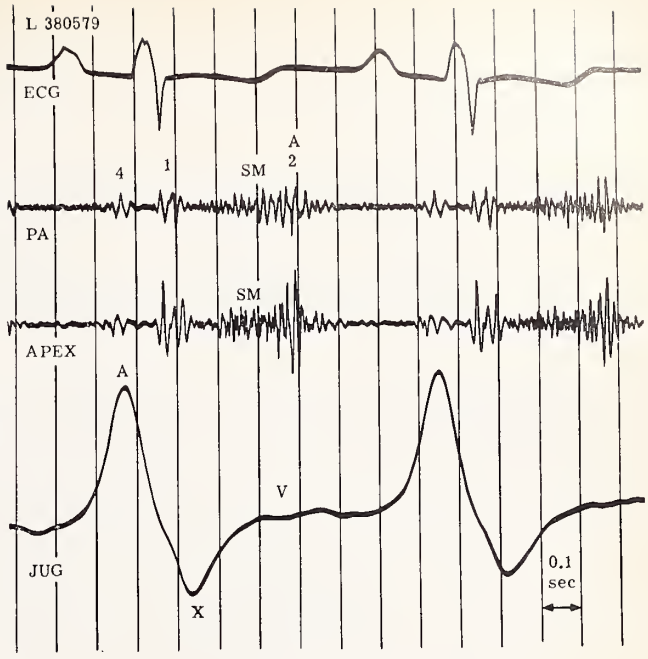

FIGURE 6
RIGHT ventricular fourth heart sound in association with severe pulmonary stenosis. The fourth sound is widely radiated and seen at both the pulmonary area (PA) and apex, as well as the lower left sternal border, its usual maximal point. Large A waves are seen in the jugular pulse curve and coincide with the fourth sound.

Summary

Current concepts of the definition, mechanism and clinical significance of gallop rhythm are reviewed. Gallop sounds are those sounds produced in association with filling of the ventricles, either during early diastole (third heart sound or protodiastolic gallop) or in response to atrial contraction (fourth heart sound, presystolic gallop or atrial gallop). They are produced by rapid expansion of the ventricle producing sudden tension upon the internal structures (chordae tendineae and valve leaflets). The clinical significance of these sounds ranges widely and reflects the diversity of situations in which they are found. Recognition of the presence of a gallop sound is often difficult, often requiring careful positioning of the patient in the left lateral decubitus position. Palpation of the precordium is often helpful in confirming the presence of these sounds, inasmuch as one will usually feel a sharp outward motion at the time of the gallop sound. Gallop sounds must be distinguished from other heart sounds and from the early diastolic sound of constrictive pericarditis, and these points are discussed.

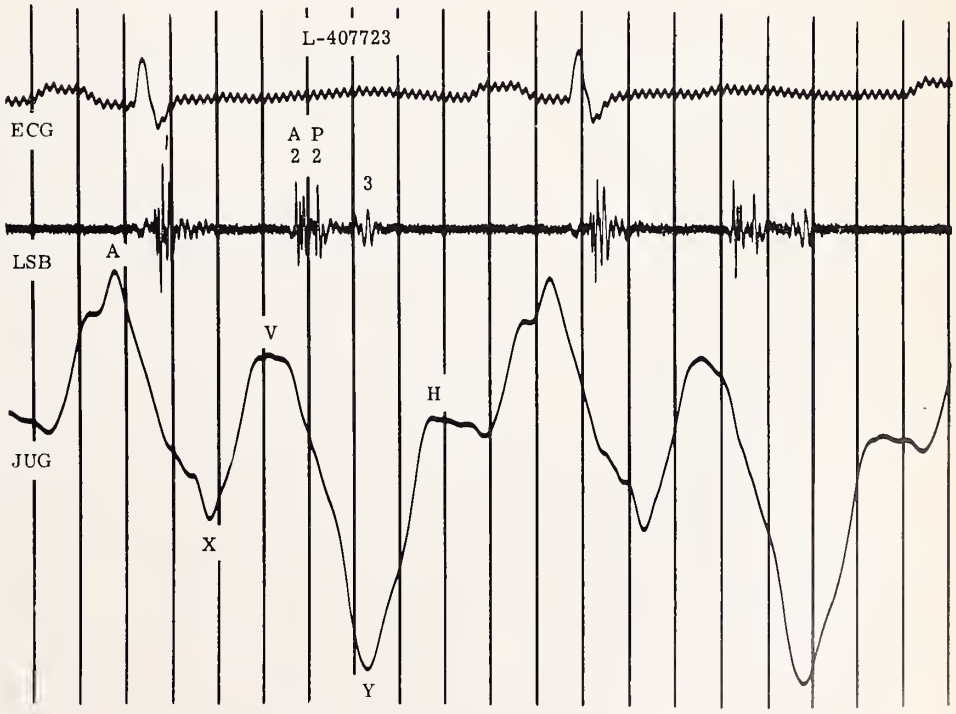

FIGURE 7
EARLY diastolic sound of constrictive pericarditis. The so-called "pericardial knock" (3) is shown here at the lower left sternal border, its usual location, and is basically indistinguishable from the third heart sound. The typical jugular pulse in this condition is displayed at the bottom, and shows a deep Y descent, followed by a rapid early rise and plateau (H). This latter descent and rise reflect rapid early ventricular filling which is halted abruptly by the adherent pericardium at the time of the Y trough.

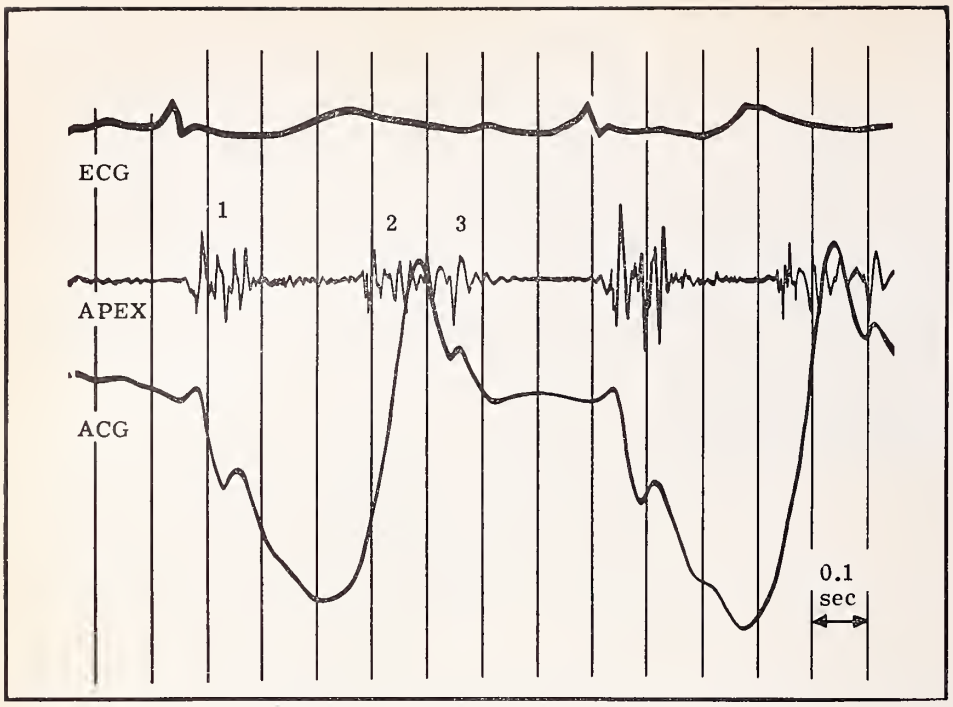

FIGURE 8

PRECORDIAL motion in constrictive pericardial disease. Over the usual area of apical impulse, the ACG indicates systolic retraction instead of expansion. This is signified by the downward deflection between the first (1) and second (2) heart sounds. Early in diastole, a rapid outward motion is seen, which is common in this condition.

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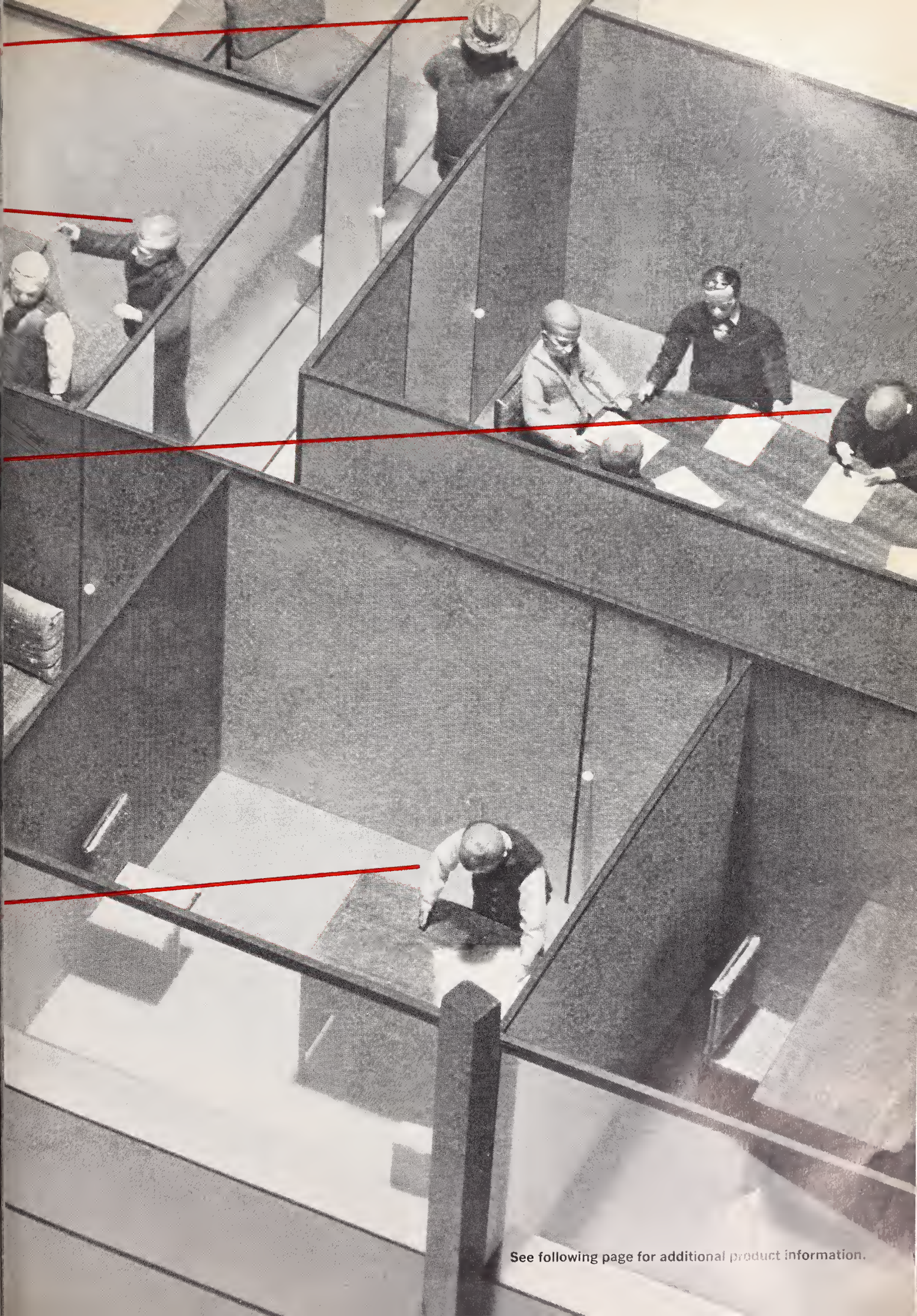

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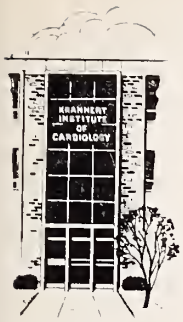

Many individuals survive into adult life with demonstrable congenital cardiac defects. Some acquire a tolerance to their handicap and do not need surgical help. However, a considerable number may be benefited by operative correction with an acceptable mortality rate.

WILLIAM K. NASSER, M.D.
HARVEY FEIGENBAUM, M.D.
CHARLES FISCH, M.D.
*Indianapolis**

The Incidence of Congenital Heart Disease in Adults at the Indiana University Medical Center

CONGENITAL heart disease accounts for approximately one to two percent of all cases of organic heart disease.[1] However, it has been stated that only 27% of patients with congenital heart disease live to be 20 years of age or older and only 10% will live to be 50 years of age.[2] It is, therefore, imperative that the clinician be aware of the presence of congenital heart disease in his patient if the proper medical or surgical treatment is to be instituted.

In the past five years, 850 adult patients have undergone cardiac catheterization at this laboratory. The technical aspects of this hemodynamic investigation have previously been reported.[3] Of this number, 190 (22.4%) patients have been found to have congenital heart disease. Although it is realized that the incidence of congenital heart disease in this series is biased by patient selection, the fact that 190 adult patients were found to have congenital heart disease in a five-year period, an incidence of 38 per year, cannot be denied. A large number of these patients had cardiac lesions amenable to surgical correction which resulted in marked improvement of their cardiovascular symptoms.

The purpose of this paper is to present our data on these 190 adults with congenital heart disease in an effort to give the relative incidence of various congenital heart defects in an adult population, to show that congenital heart disease is not uncommon in adults and to suggest that further diagnostic studies, including cardiac catheterization, be performed when congenital heart disease seems a likely possibility.

Results

This represented the first heart catheterization for 188 of the 190 patients. Almost all of the patients underwent both right and left heart catheterization. All intracardiac and intravascular shunts were confirmed by oximetry, indicator-dilution technics and selective cinecardioangiography. The patients ranged in age from 15 to 65 years. Of the 190 patients, 150 (79%) were acyanotic and 40 (21%) were cyanotic.

Sixty-three (42%) of the 150 acyanotic patients were found to have an atrial septal defect (Table 1). Only 40 (26.7%) of these 63 patients had an isolated ostium secundum defect, while the other 23 patients with an atrial septal defect were complicated by partial anomalous pulmonary venous return, pulmonic stenosis, or a cleft in the mitral and/or tricuspid valve (ostium primum defect). Ventricular septal defects were the second most common lesion, found in 25 (16.7%) of the patients. Patent ductus arteriosus and coarctation of the aorta were found in 19 (12.8%) patients each, while isolated valvular pulmonic stenosis was found in 15 (10%) and partial anomalous pulmonary venous return, as a pure defect, was found in three (2%) of the patients. Miscellaneous cases included: absence of the left pericardium, two cases (1.3%); saccular aneurysm of the aortic root, two cases (1.3%); idiopathic dilatation of the pulmonary artery, 1 case (0.6%); and one patient (0.6%) with Ebstein's anomaly of the tricuspid valve. Patients with aortic stenosis were excluded from this series since this was their first heart catheterization and it is extremely difficult to differentiate between congenital and rheumatic aortic stenosis on the basis of history in adults. It should be mentioned that the exclusion of aortic stenosis from the acyanotic group alters slightly the relative incidence of the other defects, since congenital aortic stenosis only accounted for 18 (2%) of Wood's 900 cases of congenital heart disease.[1]

Of the 40 cases of cyanotic con-

* From the Department of Medicine, Indiana University School of Medicine, and the Krannert Institute of Cardiology, Marion County General Hospital, Indianapolis.

Supported in part by the Herman C. Krannert Fund, U.S.P.H.S. Grants HE-6308, HTS-5363, and HE-5749 and the Indiana Heart Association.

genital heart disease, tetralogy of Fallot was the most common, accounting for 21 (52.5%) of the patients (Table 2). Eisenmenger's disease (pulmonary hypertension with a right to left shunt) occurred in eight (20%) of the patients and the site of the shunt was as follows: atrial septal defect, four (10%); ventricular septal defect, three (7.5%); and one (2.5%) of the patients had a reversed flow through a patent ductus arteriosus. Severe pulmonic stenosis with a right to left shunt at the atrial level was found in five (12.5%) of the patients. Four (10%) of the patients had pseudotruncus with collateral bronchial arteries supplying the lungs, giving rise to the classic continuous murmurs over both lung fields. Tricuspid atresia (with an atrial and ventricular septal defect) and truncus arteriosus were found in one (2.5%) patient each.

Discussion

Although ventricular septal defects are the most common congenital heart defect found in infants and children,[4] atrial septal defects constitute the most common congenital heart lesion in adults,[5-10] especially after the age of 40 years.[11] The reason for the relative paucity of ventricular septal defects in adulthood is not entirely clear. Several cases of spontaneous closure of a ventricular septal defect in infancy have been reported[12-16] but, to our knowledge, this has not been unequivocally documented in adults. Whether these patients have spontaneous closure of their defects, die early or are lost in follow-up, still remains an enigma to most adult cardiologists.

A few cases of spontaneous closure of an atrial septal defect have been reported in infants[17-19] but documented closure has not occurred in adults. According to Aldridge and Yao,[20] approximately 25% of the patients with atrial septal defects are not recognized in infancy and childhood and the diagnosis is made only

ACYANOTIC CONGENITAL HEART DISEASE IN ADULTS*

Diagnosis	Age (years)	Number	%
Atrial Septal Defect		63	42.0%
Ostium Secundum (isolated)	17-65 (Avg. = 41)	40	26.7
Ostium Secundum with APVR	25-58 (Avg. = 40)	10	6.7
Ostium Secundum with PS	15-36 (Avg. = 24)	4	2.7
Ostium Primum	17-49 (Avg. = 27)	9	5.8
Ventricular Septal Defect	16-65 (Avg. = 27)	25	16.7
Patent Ductus Arteriosus	15-64 (Avg. = 29)	19	12.8
Coarctation of Aorta	15-45 (Avg. = 26)	19	12.8
Pulmonic Stenosis	15-54 (Avg. = 27)	15	10.0
Partial Anomalous Pulmonary Venous Return	20-41 (Avg. = 27)	3	2.0
Miscellaneous			
Absence of Left Pericardium	20-50 (Avg. = 35)	2	1.3
Saccular Aneurysm of Ascending Aorta	20-22 (Avg. = 21)	2	1.3
Idiopathic Dilatation of Pulmonary Artery	56	1	0.6
Ebstein's Anomaly of Tricuspid Valve	21	1	0.6
	TOTAL	150	100%

*Cardiac catheterization at Indiana University Medical Center, 1962—1967
APVR = Anomalous pulmonary venous return, PS = pulmonic stenosis
Note: Patients with aortic stenosis were not included.

TABLE 1

CYANOTIC CONGENITAL HEART DISEASE IN ADULTS*

	Age (years)	Number	%
Tetralogy of Fallot	16-42 (Avg. = 26)	21	52.5%
Eisenmenger's (Pulmonary hypertension with reversed shunt)		8	20.0
ASD	27-49 (Avg. = 39)	4	10.0
VSD	17-20 (Avg. = 18)	3	7.5
PDA	52	1	2.5
Pulmonic Stenosis with ASD (right to left shunt)	16-28 (Avg. = 24)	5	12.5
Pseudotruncus	18-24 (Avg. = 22)	4	10.0
Miscellaneous			
Tricuspid Atresia	21	1	2.5
Truncus Arteriosus	27	1	2.5
	TOTAL	40	100%

*Cardiac catheterization at Indiana University Medical Center, 1962—1967
ASD = atrial septal defect, VSD = ventricular septal defect, PDA = patent ductus arteriosus

TABLE 2

in adult life. This probably represents a combination of smaller left to right shunting in infancy due to a slightly elevated pulmonary vascular resistance, lack of symptoms at this early age, and the frequent confusion between the pulmonary flow murmur of an atrial septal defect and a functional murmur. Since the average age of death in patients with atrial septal defects is 35-40 years,[21] and since it is well known that these patients deteriorate with the onset of heart failure and/or arrhythmia, some authors[7] feel that surgical closure of every detectable uncomplicated atrial septal defect of the secundum type is justified. The surgical mortality in these patients is certainly acceptable.[20-22] At the Indiana University Medical Center, we have had only two deaths in the last 100 surgical procedures for repair of an atrial septal defect.

Adults with persistent patent ductus arteriosus and coarctation of the aorta with systemic hypertension have been considered good surgical candidates with a low risk. Symptomatic adults with pulmonic stenosis who have a pressure gradient across the pulmonic valve greater than 70mm Hg. with roentgen evidence of cardiomegaly and electrocardiographic criteria for right ventricular hypertrophy usually benefit from a simple pulmonic valvulotomy. Unless a ventricular septal defect is associated with cardiopulmonary symptoms, cardiomegaly, electrocardiographic abnormalities or hemodynamic evidence of a pulmonary to systemic flow ratio greater than 2:1, it is best treated conservatively with close follow-up.

It is well known that tetralogy of Fallot is the most common form of cyanotic congenital heart disease seen in adults. This accounted for 52.5% of all forms of cyanotic heart disease in this series. It is of statistical interest that tetralogy of Fallot, Eisenmenger's syndrome (pulmonary hypertension with a reversed flow), severe pulmonic stenosis with reversed flow at the atrial level and pseudotruncus accounted for all of the cases of cyanotic heart disease in the present series of adults but two, an incidence of 95%. This correlates very well with the relative percentages of various cyanotic congenital heart disease in Wood's series.[1]

In the past, the creation of a palliative shunt between the subclavian artery and pulmonary artery, as developed by Blalock and Taussig,[23] has been the treatment of choice for most patients with tetralogy of Fallot. However, with the advent of cardiopulmonary bypass and recent advances in cardiovascular surgery, total repair of the multiple defects of Fallot's tetralogy is presently advocated. In fact, at the time of this writing, 14 consecutive patients have undergone total repair for tetralogy of Fallot without a single surgical mortality. Pulmonic stenosis with a right to left shunt through an atrial septal defect also responds quite nicely to pulmonic valvulotomy. At the present time, cardiac surgery is considered contraindicated in all patients with pulmonary hypertension with reversed flow (Eisenmenger's syndrome or complex). Pseudotruncus, tricuspid atresia and truncus arteriosus do not lend themselves to surgical correction.

It, therefore, behooves the clinician to become aware of the presence of congenital heart disease in adults. The diagnosis of 190 adult patients at this institution over a five-year period suggests that congenital heart disease is by no means rare in the adult population. Although present day surgical procedures are invaluable in prolonging the life of many of these patients, there are still many unsolved problems. The decision for proper treatment in these patients with congenital heart disease can be made only after a complete cardiac diagnostic work-up, including cardiac catheterization and selective cinecardioangiography, to determine the exact anatomic malformation and hemodynamic disturbance. The natural history of the defect must be taken into consideration. In all cases, the selection for surgery must be tempered by the realization that many patients who have tolerated their disease may have achieved a stability that surgery might not improve.[7]

Summary

In the past five years, 850 adult patients have undergone cardiac catheterization at this laboratory. Of this number, 190 patients have been found to have congenital heart disease, an incidence of 22.4%. Forty (21%) of the adults were cyanotic and the other 150 (79%) were acyanotic. Tetralogy of Fallot was the most common cyanotic defect, accounting for 52.5% of the cyanotic group, while atrial septal defects accounted for 42% of the acyanotic group, thereby making it the most common congenital heart lesion found in adults. It is, therefore, essential that the clinician become aware of the presence of congenital heart disease in adults. The decision for proper treatment in these patients with congenital heart disease can be made only after a complete cardiac diagnostic work-up, including cardiac catheterization and selective cineangiocardiography, to determine the exact anatomic malformation and hemodynamic disturbance.

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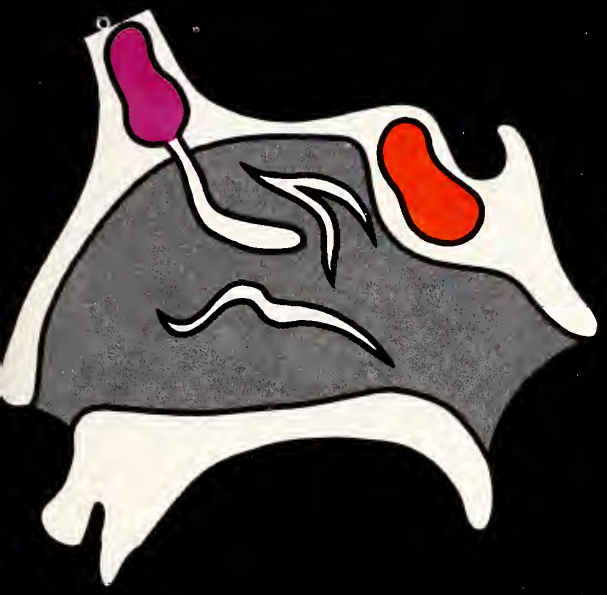
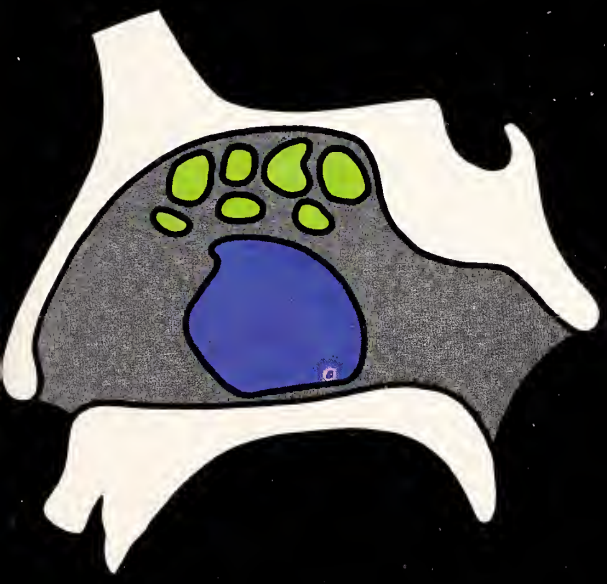
Sources of sinus headache



REGION OF SENSATION

FRONTAL SINUS—headache localized over the frontal region, commonly beginning in the morning. Eyes painful to touch, may be slight swelling over eyes, puffy eyelids.

SPHENOID SINUS—most difficult to diagnose. Headache or sense of pressure over vertex. May be pain in ear or mastoid region.



MAXILLARY SINUS—headache and tenderness under eyes at top of cheekbones, usually starting in early afternoon. Possible swelling of cheek. Pain in jaw and back teeth.

ETHMOID SINUS—headache, tightness in upper part of bridge of nose and well down its sides. Pain, deep-seated behind the eyes and in inner corners of the eyes.

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An unexplained hypovolemia often develops after open heart surgical procedures. Accurate determination of blood volume, as by radioiodinated serum method, is a necessity if low cardiac output syndrome is to be avoided. In absence of a dependable measure of blood volume, volume expansion should be considered in treatment of low cardiac output in spite of otherwise normal empiric signs.

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Masked Hypovolemia Following Open Heart Surgery

HYPOVOLEMIA occurring postoperatively in patients undergoing open heart surgery and cardiopulmonary bypass has been incriminated with increasing frequency as an etiologic factor in the postoperative low cardiac output syndrome.[1-5]

Blood volume replacement to preoperative levels has been shown to significantly increase the cardiac output in patients without evidence of residual valvular lesion or myocardial disease.[5]

To evaluate the magnitude of postperfusion hypovolemia, a group of open heart surgery patients were studied at the Indiana University Medical Center. The study was also designed to ascertain if other indices could be used to indicate clinically the existence of a decreased effective blood volume.

Methods

Twenty-two patients undergoing open heart repair of various congenital and acquired heart lesions were studied. The groups included eight atrial septal defect repairs, seven of the secundum and one of the primum type; eight mitral valve replacements; three aortic valve replacements; one aortic and mitral valve replacement; one congenital fibrotic subaortic stenosis resection; and one pulmonic valvotomy. All valve replacements were accomplished with a Starr-Edwards prosthesis.

Surgery was performed using a rotating disc oxygenator with roller pumps. The priming volume for the extracorporeal circulation was made up of four to five units of heparinized whole blood, 500 ml of low molecular weight dextran and Normosol (Abbott) to make up a three to one dilution. At the end of the bypass, blood was transfused from the pump to the patient, attempting to replace the estimated blood loss. Thereafter, blood was replaced volume for volume with chest tube drainage.

The Volumetron,[6] utilizing radioiodinated serum albumin (RISA), was used for the blood volume determinations. A mixing time of 10 minutes was employed except in Class IV patients where the mixing time was extended to 12 minutes. Two blood volume determinations were obtained prior to surgery. Postoperatively, blood volumes were obtained immediately on the patient's return from surgery to the intensive care unit, and on the second and third postoperative day in all patients. In 13 patients, a blood volume determination was also obtained on the fourth postoperative day. Seventeen of the 22 patients had a blood volume determination between the fourth and seventh postoperative day. In the immediate postoperative period, none of the patients was in overt shock or receiving rapid blood transfusion. None was in pulmonary edema.

The values determined by the Volumetron method were compared with the "estimated" balance at the end of surgery as determined in the usual gravimetric manner. The difference between the estimated and measured volumes as compared with preoperative volumes was labeled masked hypovolemia.

Serial hematocrits and body weights were correlated with volume determinations in all patients during the early postoperative period and in 16 patients 7-10 days postoperatively.

Results

Masked hypovolemia immediately postoperatively averaged 1128 ml in 20 patients. The range was from 300 ml to 3,000 ml. In one patient the surgical estimate and measured volume were the same. In another, masked hypovolemia was not demonstrated (Table 1). The hypovolemia was independent of the length of the procedure and type of surgery. The low output syndrome appeared in three

* From the Department of Medicine, Indiana University School of Medicine, and the Krannert Institute of Cardiology, Marion County General Hospital, Indianapolis.

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BLOOD VOLUME DETERMINATIONS, SURGICAL ESTIMATE OF BLOOD LOSS AND MASKED HYPOVOLEMIA*

Patient	Average Preoperative Blood Volume (ml)	Immediate Postoperative Blood Volume	Surgeons Estimate of Blood Loss	Masked Hypovolemia (ml)
1. V.C.	3800	2700	—300	800
2. E.B.	4500	3300	even	1200
3. F.K.	6800	4600	—250	1950
4. H.H.	6150	5200	—1000	0
5. L.C.	3900	3400	—75	425
6. E.J.	3500	2600	+150	1050
7. R.M.	4600	2800	even	1800
8. D.C.	5300	3940	even	1360
9. M.B.	3300	2850	—640	+190
10. T.S.	4450	3150	—450	850
11. H.G.	3750	2450	—300	1000
12. J.B.	5000	3850	—300	850
13. N.G.	4350	3600	even	750
14. D.B.	4900	3300	+40	1640
15. H.H.	5850	3500	+120	2500
16. E.P.	5950	5100	—100	750
17. F.D.	4850	3250	—150	1450
18. D.W.	3800	2900	—400	500
19. L.H.	5500	4100	even	1400
20. R.M.	3700	3200	—200	300
21. M.R.	6650	3550	—85	3000
22. H.D.	5550	4000	+30	1500
			Avg:	1128

* Masked hypovolemia is the difference between the surgical estimate of blood loss and the change in measured blood volume.

TABLE 1

HEMATOCRIT CHANGES, EARLY AND LATE POSTOPERATIVELY

Patient	Pre-operative Hematocrit	Immediate Post-operative	Hematocrit Change	Masked Hypovolemia (ml)	4-7 days Postoperative Hematocrit	Hematocrit Change
1. V.C.	39	34	—5	800	37	—2
2. E.B.	41	37	—4	1200	36	—5
3. F.K.	45	35	—10	1950	37	—8
4. H.H.	36	31	—5	0	42	—6
5. L.C.	42	37	—5	425		
6. E.J.	34	36	+2	1050	33	—1
7. R.M.	44	35	—9	1800	32	—12
8. D.C.	45	49	+4	1360	43	—2
9. M.B.	36	35	—4	+190	33	—6
10. T.S.	39	37	—2	850	36	—3
11. H.G.	37	35	—2	1000	43	+6
12. J.B.	38	35	—3	850		
13. N.G.	41	36	—5	750	30	—11
14. D.B.	45	42	—3	1640	34	—11
15. H.H.	38	36	—2	2500	29	—9
16. E.P.	44	40	—4	750	38	—6
17. F.D.	41	40	—1	1450	33	—8
18. D.W.	37	36	—1	500		
19. L.H.	41	37	—4	1400	27	—14
20. R.M.	39	32	—7	300		
21. M.R.	39	38	—1	3000		
22. H.D.	44	38	—6	1500	31	—13

TABLE 2

patients with concealed hypovolemia of 1000, 1640 and 2500 ml respectively and responded promptly to blood replacement.

The immediate postoperative blood volume as determined by the Volumetron averaged 23% below the preoperative blood volume in the hypovolemic group. Immediately postoperatively, the hematocrit did not give any consistent indication of the magnitude of the hypovolemia (Table 2).

By the second or third postoperative day, 19 patients had restored their volumes to within 85% of the preoperative value. Of these, three patients were completely restored (Table 3). Three patients continued to have significant hypovolemia.

By the 4-7 day postoperatively, nine patients were completely restored and of the remaining eight, six were 250 ml or less behind and two had deficits of 1000 ml or more. There was no correlation between the surgical estimate on the basis of blood loss and replacement balance sheets and the measured volumes (Table 3). The hematocrit values in 14 patients having both determinations from the 4-7 postoperative day showed no correlation (Table 2). The weights of the patients showed absolutely no correlation with either the volumes or hematocrits.

Discussion

The Volumetron technic for the measurement of blood volume has been shown to be accurate and is satisfactory for the clinical assessment of volume derangements.[6,7] The blood volume measurements in this study were considered to be reliable as the difference between two preoperative determinations was less than three percent.

Litwak and associates were the first to report an unexplained post-total - body - perfusion hypovolemia, based on the lack of correlation between measured blood volume

Patient	Preoperative Average Blood Volume (ml)		Postoperative Days S	+1	+2	+3	+4	+5	+6	+7
		CB	−300	−395	−585	−810	−200	−450	−800	−1100
1. V.C.	3800	M	2700	2700	3000		3600	3550		3500
			even	+150	+235	+135				
2. E.B.	4500		3300	3450	3900					4810
			−250	+75	−75			+175		
3. F.K.	6800		4600	5150	6050			7500	7000	
			−1000	−150	+50	−125	−225			
4. H.H.	6150		5200	5800	5800					6120
			−75	−75	−200	−250				
5. L.C.	3900		3400	3620	3900					
			+150	+335	+450	+400				
6. E.J.	3500		2600	2700	3050					
			even	+200	+835	+685	+610			
7. R.M.	4600		2800	3300	4200		4300			5000
			even	+150	+125	+75	+275			
8. D.C.	5300		3940	4400	4520					
			−640	−715	−715	−915	−1265	−1315		
9. M.B.	3300		2850	2750	2900	3000				3000
			−450	−125	+25	−250	−300			
10. T.S.	4450		3150	3400	4300	4000			4400	
			−300	−375	+340	+740				
11. H.G.	3750		2450	2750	3300				3600	
			−300	−260	−310					
12. J.B.	5000		3850	3850	4250	4600				4800
			even	−15	−65	−115	−140	−290	−415	
13. N.G.	4350		3600	3800	4250	4100			4600	
			+40	+1030	+730					
14. D.B.	4900		3300	4150	4400	4700				5000
			+120	+745	+770	+670	+570			
15. H.H.	5850		3500	3900	4400	4600				4500
			−100	−100	−375	−500				
16. E.P.	5950		5100	5500	6200	6000				5900
			−150	−275	−475	−525				
17. F.D.	4850		3250	3450	3350	3700				4400
			−400	−300	+25	+75				
18. D.W.	3800		2900	3200	3650	3600				
			even	−125	−275	−525	−850	−1050		
19. L.H.	5500		4100	4000	4500	4200				
			−200	−175	−100					
20. R.M.	3700		3200	3000	3100	3200				3400
			−85	+175	−50	−200				
21. M.R.	6650		3550	3800	4500	4800				5500
			+30	−420	−500	−600				
22. H.D.	5550		4000	3500	4800	4900				5700

CB = Surgical estimate minus chest tube drainage plus blood replacement.
M = Volumetron measured blood volume.

TABLE 3

changes, body weight and measured blood volume. They postulated a phenomenon of early "sequestration" and late "desequestration."[1]

Others studying this problem also found a significant unexpected post-perfusion hypovolemia.[2-5] Theye and Kirklin,[6] however, found the predicted change in blood volume and the measured volume to agree when the combined errors of the methods used were taken into account. The difference in these results is still unexplained.

Low molecular weight dextran is excreted very rapidly[7] and this may have resulted in some decrease in the intravascular volume immediately postoperatively but certainly not of the magnitude encountered in this study.

Investigators who have transfused early in the postoperative period to the preoperative blood volume on the basis of measurement have found no problems with hypervolemia secondary to late "desequestration." Our data also indicate that whether transfusion is carried out or not, over and above estimated blood loss, the blood volume tends to return to preoperative level after the third postoperative day.

It has been repeatedly emphasized that the only unequivocal evidence of hypovolemia must be obtained by direct blood volume measurement. Early, the hematocrit changes, while usually directional, give no indication of the extent of hypovolemia. Later, the hematrocrit values may be completely misleading because of the changing ratio of red cell mass to plasma volume; and, indeed, transfusion at this stage might result in significant hypervolemia as almost all of the patients are volume repleted.

Thus, while there are many causes for the low cardiac output syndrome after open heart surgery, hypovolemia should be considered in all cases because of its frequent occurrence. In the absence of blood volume measurement, we consider it mandatory, when faced with the problem, to transfuse from 500 to 1000 cc of blood in small increments until the central venous pressure rises to levels above 15 mm Hg. with additional volume expansion.

Summary

Blood volumes were measured serially in 22 patients undergoing open heart surgery. An unexpected hypovolemia averaging 1128 ml or 23% of the preoperative blood volume for the group was documented. There was no correlation between concomitant hematocrit determination or body weight and the degree of hypovolemia.

If blood volume determinations are not available, it is recommended that significant masked hypovolemia be considered in the etiology of the low output syndrome early postoperatively and volume expansion carried out to assure an adequate filling pressure for the heart.

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Air Pollution Conference

The 1968 Air Pollution Medical Research Conference will be held July 21-23, 1968, in Denver, Colorado. The AMA has been given a grant by the U.S. Public Health Service to partially cover conference expenses.

James G. Telfer, M.D., Director of the AMA Environmental Health Department, has been appointed the principal investigator for the grant. The meeting, open to the public, will focus on physicians, mainly.

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Pharmaceutical Research

THE remarkable record of the pharmaceutical industry in research was highlighted recently when it was announced that it had financed more than 96% of its research and development program from its own capital in 1966. Government funds accounted for only 3.4% of the industry's research outlay.

By contrast, the government supports 90% of the research and development in aircraft and missiles, 62% in electrical equipment and 27% for motor vehicles.

All private industry combined provides only 41% for research; the government pays the remaining 59%.

C. Joseph Stetler, president of the Pharmaceutical Manufacturers Association, estimates that the total investment in research for 1967 will be $476.2 million. This is an increase over that for 1966 of about 14.4%. 1966 was 14% ahead of 1965.

American medicine can be proud of the industry which leads the world in the discovery and development of new drugs, spends its own money in the process and has, during the past decade, provided prescription drugs at a retail cost which has steadily declined by ten cost-of-living-index points while the cost of living index for all items has increased by 20 points.

Mr. Stetler pays a great tribute to his colleagues and implies the expenditure of ingenuity and considerable money when he reports that more than 6,000 compounds are studied and discarded for each useful product that reaches the market.

The drug industry tests more than 100,000 substances each year and is rewarded by only a few completely new and useful drugs. The average cost of each new drug discovery since 1957 has been $6.8 million. Expenditures for new finds have been increasing at a rate more than twice as great as the increase in sales.

Self-supported basic, pharmacologic and clinical research has been the hallmark of the U. S. pharmaceutical industry for many years. Its record of achievement in the discovery of new drugs is at once a beneficence for everyone and the envy of the entire world.

Socio-Economic Education of Physicians

THE best medical school education necessarily leaves many things untaught, and several things unmentioned. Chief among the subjects that cannot be covered fully is the socio-economic aspects of medical practice.

The American Medical Association has published a 90-page book, "The Physician's Career"* which is designed to provide information and advice for practicing physicians, medical students, interns and residents.

It is constructed as a teaching outline and is ideal as a guide for training courses for hospital resident staffs—and because of its compact nature, it also may serve admirably as a reference work and guide for the doctor in practice or for advice in establishing a practice.

Part I of "The Physician's Career" is devoted to the physician's relationship within the health professions and facilities in which his practice operates. Chapters discuss: patterns of medical practice, licensure and accreditations, health profession organizations, medical ethics, teaching and research, business aspects of medical practice, and medicolegal obligations and relations.

Part II describes the community framework, both voluntary and gov-

* "The Physician's Career — A Teaching Outline on Medical Practice and Community Relations, for Physicians and Medical Students," edited by Henry F. Howe, 90 pp., 75 cents, Chicago, 1967; American Medical Association, 535 N. Dearborn, Chicago, 60610.

ernmental, by which society supports the professional health services. Chapters consider community, voluntary, and governmental health programs; voluntary health insurance; medical cultism and quackery; and the personal, family, and citizenship responsibilities of the physician.

Compact, paperbound, concise, lightweight, easy to read, inexpensive, easily available by mail—every one in medicine should own at least one copy.

AMA Adopts Expanded Statement of Purpose

BROAD initiative in advancing health care for everyone is detailed in an expanded statement of purposes and responsibilities of the American Medical Association adopted by its House of Delegates and disseminated to all AMA members.

The 11-point document greatly enlarges upon the previous statement of AMA purposes. It puts the skills and resources of the world's largest medical organization behind a continuing effort to stimulate progress in all aspects of health care in America.

The statement declares that it is the responsibility of the AMA, as the representative of the American medical profession, to continue to foster the advancement of medical science and the health of the American people and to discharge that responsibility through the following means:

1. By encouraging the advancement of medical knowledge, skills, technics and drugs; and by maintaining the highest standards of practice and health care.

2. By creating incentives to attract increasing numbers of capable people into medicine and the other health-care professions.

3. By advancing and expanding the education of physicians and other groups in the health-care field.

4. By motivating skilled physicians who have the art of teaching to apply themselves to developing new generations of excellent practitioners.

5. By fostering programs that will encourage medical and health personnel to serve voluntarily in the areas of need for medical care.

6. By developing technics and practices that will moderate the costs of good medical and health care.

7. By seeking out and fostering means of making all health care facilities—physicians' offices, hospitals, laboratories, clinics and others—as efficient and economical as good medical practice and attention to human values will permit.

8. By combining the utilization of the latest knowledge for prevention and treatment with the vital healing force of the physicians personal knowledge of and devotion to his patient.

9. By maintaining the impetus of dedicated men and women in providing excellent health care by preserving the incentives and effectiveness of unshackled medical practice.

10. By maintaining the highest level of ethics and professional standards among all members of the medical profession.

11. By providing leadership and guidance to the medical profession of the world in meeting the health needs of changing populations.—**AMA News Release.**

Editorial Notes...

The total hospital cost per patient day for the entire country for the 12 months ending September 30, 1967, was $55.82. The American Hospital Association predicted last spring that the increase would add up to $57.93, a prediction which failed because salary increases did not develop as expected. Since the delayed salary increases will probably materialize in fiscal 1968, the association now estimates that the 1968 increase in total hospital costs will be as much as 15% (the 1967 increase amounted to 14.3%).

Periodic relicensing of physicians is one of the recommendations of the "National Advisory Commission on Health Manpower." Under the heading of "The Quality of Care," it is recommended that states should have licensure codes for all health personnel, and "Professional societies and state governments should explore the possibility of periodic relicensing of physicians and other health professionals. Relicensure should be granted either upon certification of acceptable performance in continuing education programs or upon the basis of challenge examinations in the practitioner's specialty."

Recent parathion poisoning episodes in Mexico and Colombia have highlighted the importance of prompt treatment and the availability of proper antidotes. Ayerst Laboratories rushed supplies of their cholinesterase reactivator, Protopam Chloride® (pralidoxime chloride), to the stricken areas. Ayerst also supplies copies of a complete organophosphate poisoning reference guide to all Poison Control Centers, hospitals and retail pharmacies. Physicians may obtain the guide by writing Ayerst at 685 Third Ave., New York City 10017.

"Chemical similarity is not necessarily indicative of therapeutic equivalency", and "drugs which meet government and Pharmacopoeia standards are not always as effective as their brand-name counterparts" are two statements which have been repeated and repeated by experts without convincing those who think that generic prescribing is always for the best. Parke Davis recently tested Chloromycetin against three examples of chloramphenicol produced by other laboratories. Chloromycetin dissolved much more rapidly than its competitors, and reached a maximum blood level much

sooner, reached a higher blood level and demonstrated better excretion rates than all three others. All the demonstrated differences were large enough to have been highly significant in the treatment of a serious infection.

A plastic rod which scintillates under x-radiation may be implanted in a laboratory dog's eye and, according to observations at the Purdue School of Engineering, may make it possible for the dog's eye to perceive otherwise invisible nuclear radiations. No foreign body reaction is identifiable in the vitreous of the eye. If further investigation is favorable it may be possible to build the sixth sense in man's eye and allow him to perceive radiations at dose levels below those harmful to him.

The VA finds emphysema to be its fastest growing and most alarming disease. During the past year, VA hospitals have doubled the number of special units for emphysema treatment and now have such special units with diagnostic laboratories in 52 hospitals. Further expansion is planned. All standard treatment modes are prescribed, both for inpatients and outpatients. Elimination of smoking is stressed for emphysema patients and smoking is discouraged among all VA patients.

The American Mutual Insurance Alliance explains why auto insurance premiums have increased during the last ten years by stating that in the same period there have been 55% more insured vehicles, 39% more insured drivers, 48% more vehicle mileage, 36% more traffic accidents, 33% more traffic deaths, 38% more traffic injuries and 34% more vehicles damaged—and at the same time the medical care cost index is up 39.1%, the hospital care cost index is up 92% and the auto repair cost index is up 21%. Claim costs for property damage are up by 67.4% and for bodily injury are up by 40.1%. Auto insurance premiums in ten years have increased from a little over $4 billion to $10 billion.

In the midst of nationwide pressures for the admission of larger classes to medical schools and for the organization of new medical schools, it is sobering to find that there are several U.S. medical schools suffering with financial anemia. The Association of American Medical Colleges reports that as many as ten schools are in a precarious state as regards finances, with average expenditures per student as low as 50% of the national average and with an average of 6.7 students per faculty member as against a national average of 4.5 students per faculty. Even as expensive as a medical education is, it is evident that there is need for more money. ◀

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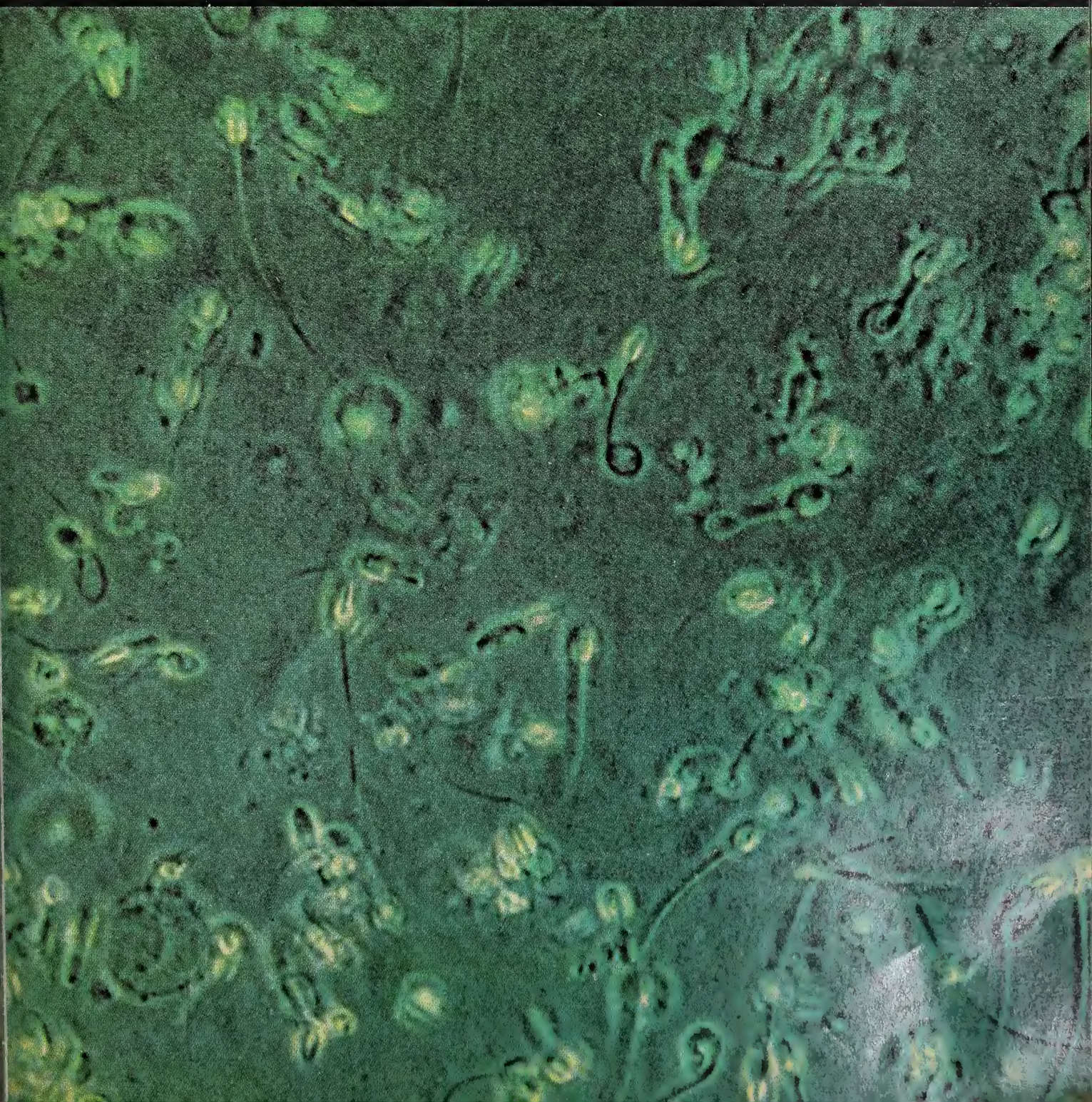
Admissions are arranged through referral to any active staff psychiatrist.

All general medical and surgical specialties in the community are available through physicians on the open consulting staff.

When the talk turns to oral contraceptives, it makes medical sense to remember low-dose Norinyl®-1.

(norethindrone 1mg. c̄ mestranol 0.05mg.)

Turn page for contraindications, precautions and side effects.



Reduction of oral contraceptive dosage to the lowest effective levels is a well-accepted principle of conservative medical practice. In keeping with this view, Norinyl is now also available as Norinyl-1, containing exactly one half the previous dosage of norethindrone and mestranol. Clinical experience has established that effective fertility control can be achieved with the same degree of reliability and safety with new Norinyl-1 when taken as directed.

What about switching patients from higher dosage forms?

In transferring patients to low-dose Norinyl-1 from higher-dosage oral contraceptives, some breakthrough bleeding may occur in the early cycles. In the majority of cases the bleeding episode is mild and self-limited. The long-term advantages of the lower dosage form should be weighed against the inconvenience of possible breakthrough bleeding in the individual patient.

Contraindications: 1. Patients with thrombophlebitis or with a history of thrombophlebitis or pulmonary embolism. 2. Liver dysfunction or disease. 3. Patients with known or suspected carcinoma of the breast or genital organs. 4. Undiagnosed vaginal bleeding.

Warnings: 1. Discontinue medication pending examination if there is sudden partial or complete loss of vision or if there is a sudden onset of proptosis, diplopia or migraine. If examination reveals papilledema or retinal vascular lesions, medication should be withdrawn. 2. Since the safety of NORINYL-1 (norethindrone 1 mg. with mestranol 0.05 mg.) in pregnancy has not been demonstrated, it is recommended that for any patient who has missed two consecutive periods, pregnancy should be ruled out before continuing the contraceptive regimen. If the patient has not adhered to the prescribed schedule, the possibility of pregnancy should be considered at the time of the first missed period. 3. Detectable amounts of the active ingredients in oral contraceptives have been identified in the milk of mothers receiving these drugs. The significance of this dose to the infant has not been determined.

Precautions: 1. The pretreatment physical examination should include special reference to breast and pelvic organs, as well as a Papanicolaou smear. 2. Endocrine and possibly liver function tests may be affected by treatment with NORINYL-1. Therefore, if such tests are abnormal in a patient taking NORINYL-1 it is recommended that they be repeated after the drug has been withdrawn for two months. 3. Under the influence of estrogen-progestogen preparations, preexisting uterine fibromyomata may increase in size. 4. Because these agents may cause some degree of fluid retention, conditions that may be influenced by this factor, such as epilepsy, migraine, asthma, cardiac or renal dysfunction, require careful observation. 5. NORINYL-1 should be used with caution in patients with a history of cerebrovascular accident. 6. In relation to breakthrough bleeding, and as in all cases of irregular bleeding *per vaginam*, nonfunctional causes should be borne in mind. In cases of undiagnosed vaginal bleeding, adequate diagnostic measures are indicated. 7. Patients with a history of psychic depression should be carefully observed and the drug discontinued if the depression recurs to a serious degree. 8. Any possible influence of prolonged NORINYL-1 therapy on pituitary, ovarian, adrenal, hepatic or uterine function awaits further study. 9. A decrease in glucose tolerance has been observed in a small percentage of patients on oral contraceptives. The mechanism of this decrease is obscure. For this reason, diabetic patients should be carefully observed while receiving NORINYL-1 therapy. 10. Because of the occasional occurrence of thrombophlebitis and pulmonary embolism in patients taking oral contraceptives, the physician should be alert to the earliest manifestations of the disease. 11. Because of the effects of estrogens on epiphyseal closure, NORINYL-1 should be used judiciously in young patients in whom bone growth is not complete. 12. The age of the patient constitutes no absolute limiting factor, although treatment with NORINYL-1 may mask the onset of the climacteric. 13. The pathologist should be advised of NORINYL-1 therapy when relevant specimens are submitted.

Side effects observed in patients receiving oral contraceptives: The following adverse reactions have been observed in patients receiving oral contraceptives: nausea, vomiting, gastrointestinal symptoms (such as abdominal cramps and bloating), breakthrough bleeding, spotting, change in menstrual flow, amenorrhea, edema, chloasma or melasma, breast changes (tenderness, enlargement and secretion), change in weight (increase or decrease), changes in cervical erosion and cervical secretions suppression of lactation when given immediately postpartum, cholestatic jaundice, migraine, rash (allergic), rise in blood pressure in susceptible individuals, mental depression.

Although the following side effects have been reported in users of oral contraceptives, no cause and effect relationship has been established: anovulation post-treatment, premenstrual-like syndrome, changes in libido, changes in appetite, cystitis-like syndrome, headache, nervousness, dizziness, fatigue, backache, hirsutism, loss of scalp hair, erythema multiforme, erythema nodosum, hemorrhagic eruption, itching.

The following occurrences have been observed in users of oral contraceptives (a cause and effect relationship has been neither established nor disproved): thrombophlebitis, pulmonary embolism, neuro-ocular lesions.

The following laboratory results may be altered by the use of oral contraceptives: increased sulfobromophthalein and other hepatic function tests, coagulation tests (increase in prothrombin, Factors VII, VIII, IX and X), thyroid function (increase in PBI and butanol extractable protein-bound iodine and decrease in T^3 values), metyrapone test, pregnanediol determination.

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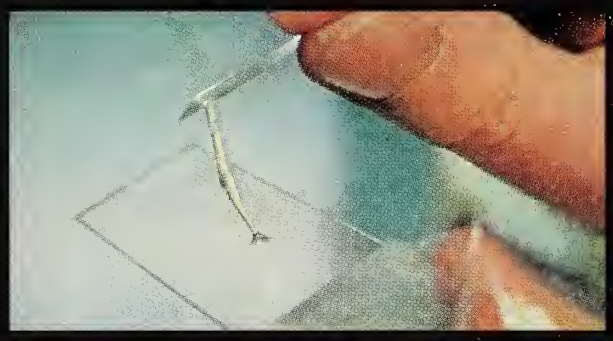
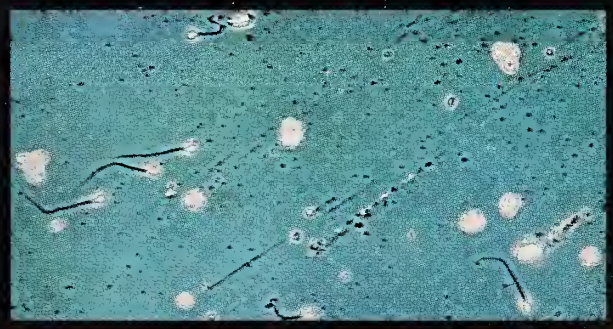
Here's why Norinyl-1 makes medical sense.

The effectiveness of Norinyl-1 as a low-dose oral contraceptive may be explained by its possible multiple action. In addition to its primary action of suppression of ovulation, Norinyl-1 may offer additional protective mechanisms... (1) creation of a cervical mucus that may be hostile to sperm penetration, and (2) development of an endometrium that may be out of phase with nidation. These effects are illustrated below.

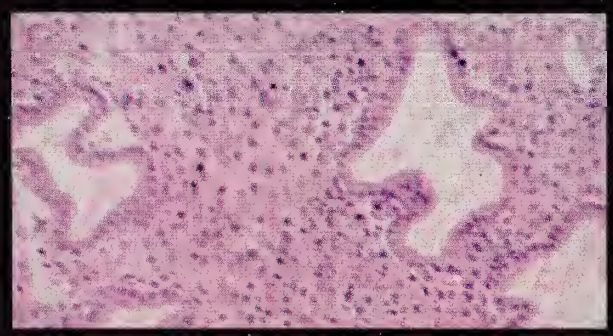
Untreated Patient



Cervical mucus at midcycle is usually thin and watery, with Spinnbarkeit (stretchability) of 15 to 20 cm.



Spermatozoa appear healthy, active, freemoving.



Endometrium of untreated patient is receptive to the fertilized ovum during secretory phase.

Norinyl-1 Patient

Cervical mucus at midcycle is scanty, viscous—with Spinnbarkeit of 1 cm. or less.

Immobile spermatozoa as they appear in cervical mucus taken from patient treated with Norinyl-1.

Norethindrone in Norinyl-1 accelerates secretory phase, suppresses glandular and vascular development.

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The clinical efficacy of Synalar has been extensively documented in the world literature. Commonly encountered diseases such as allergic and contact dermatitis, eczematous and seborrheic dermatitis, and neurodermatitis respond rapidly to Synalar, often where previous therapy with other topical corticosteroids has failed.

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Turn page for contraindications, precautions and side effec

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Contraindications: Tuberculous, fungal, and most viral lesions of the skin (including herpes simplex, vaccinia, and varicella). Not for ophthalmic use. Contraindicated in individuals with a history of hypersensitivity to any of the components. *Precautions:* Synalar preparations are virtually nonsensitizing and nonirritating. However, the solution may produce burning or stinging when applied to denuded or fissured areas. In some patients with dry lesions, the solution may increase dryness, scaling or itching. Where severe local infection or systemic infection exists, the use of systemic antibiotics should be considered, based on susceptibility testing. While topical steroids have not been reported to have an adverse effect on pregnancy, the safety of their use on pregnant females has not absolutely been established. Therefore, they should not be used extensively on pregnant patients, in large amounts, or for prolonged periods of time. *Side Effects:* Side effects are uncommon with topical corticosteroids. As with all drugs, however, a few patients may react unfavorably to Synalar under certain conditions. In such cases the agent should be discontinued and appropriate measures taken. *Availability:* Synalar (fluocinolone acetonide) Cream 0.025%—5, 15 and 60 Gm. tubes and 425 Gm. jars. Cream 0.01%—15, 45 and 60 Gm. tubes and 120 Gm. jars. Solution 0.01%—20 and 60 cc. plastic squeeze bottles. Ointment 0.025%—15 and 60 Gm. tubes. Neo-Synalar® (neomycin sulfate 0.5% [0.35% neomycin base], fluocinolone acetonide 0.025%) Cream—5, 15 and 60 Gm. tubes.

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President's Page

While people in general, and especially members of our profession, are, hopefully, interested in all areas of accident prevention, the season of snow, ice, sleet, and other adverse weather conditions make the time appropriate to consider the tragic statistics related to the motor vehicle. There were 1,550 automobile fatalities in Indiana alone in 1967. The number of injuries were, of course, many times this figure. The country-wide statistics released annually by The National Safety Council are both shocking and embarrassing.

Why do we permit such carnage to continue year after year? At least a part of the answer is psychological. If every man, woman, and child were to be suddenly destroyed in an Indiana city of 1,500 population on a given day each year, the incident would be so dramatic and shocking that we would insist on doing something about it. But since our automobile accidents happen "here and there", we have come to absorb these scattered tragedies with a kind of complacent expectancy.

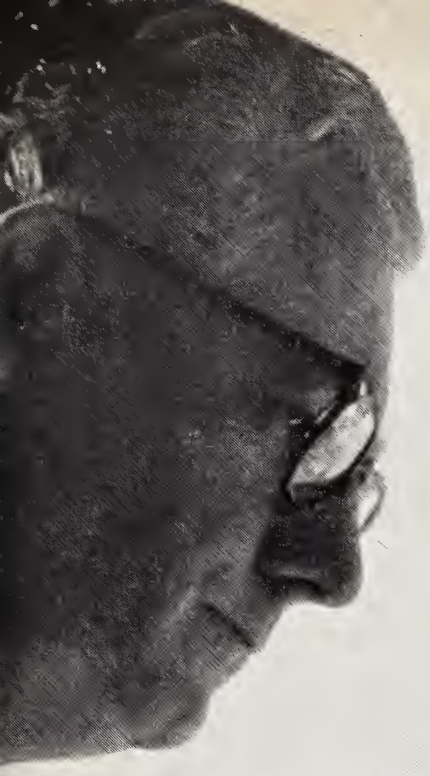
Our traffic technicians have repeatedly told us of the importance of the three E's: education, engineering and enforcement. Much has been done in improved engineering of our highways, cars and signal systems. Our driver training courses in our secondary schools should be commended and encouraged. The good driver must know what to do, how to do it, and most important of all, to *want to do it* correctly. It is in this last category that we are most apt to fail.

We have long known that more than 80% of all automobile accidents are due to human failures. Since 1964, by law, all cars sold in Indiana must be equipped with seat belts, but it is surprising how many fail to use this important safety device consistently. Also, too many drivers are not realistically aware of nature's physical laws, such as momentum and centrifugal force on curves. They should know that if a car going 60 miles an hour were to hit an immovable object, the impact is the same as if it were dropped from a ten-story building. They should know that even with good brakes on a dry highway surface, it requires 272 feet to stop a car going 60 miles an hour. They should know that the impact of a car going 40 miles an hour is not twice that of one moving 20 miles an hour, but four times as great, since the impact varies with the square of the speed. In short, every good defensive driver should know and heed all of the safety recommendations of our best traffic experts.

Now that our Hoosier winter is with us, a good beginning is to reduce or even eliminate driving trips when weather and highway conditions are hazardous. When driving must be done, an alert checking of these conditions is important. Certainly we must drive at a speed and in a manner that is compatible with adverse conditions.

There are many things in our contemporary environment that we cannot change easily. BUT WE CAN DO SOMETHING IMPORTANT ABOUT REDUCING AUTOMOBILE ACCIDENTS.

G. O. Larson M.D.



Tissue's healing nicely. Yet anxiety slows his steps toward recovery.

By helping overcome anxiety and tension which can thwart the convalescent's progress, Equanil® often may play an important role in medical and surgical aftercare.

Indications: For use in management of anxiety and tension occurring alone or as accompanying symptom complex to medical and surgical disorders and procedures. Though not a hypnotic, fosters normal sleep through antianxiety and related muscle-relaxant properties.

Contraindications: History of sensitivity to meprobamate.

Important Precautions: Carefully supervise dose and amounts prescribed, especially for patients prone to overdose themselves. Excessive prolonged use has been reported to result in dependence or habituation in susceptible persons, as alcoholics, ex-addicts, and other severe psychoneurotics. After prolonged excessive dosage, reduce dosage gradually to avoid possibly severe withdrawal reactions. Abrupt discontinuance of excessive doses has sometimes resulted in epileptiform seizures.

Warn patients of possible reduced alcohol tolerance, with resultant slowing of reaction time and impairment of judgment and coordination.

Reduce dose if drowsiness, ataxia or visual disturbance occurs; if persistent, patients should not operate vehicles or dangerous machinery.

Side Effects include drowsiness, usually transient; if persistent and associated with ataxia, usually responds to dose reduction; occasionally concomitant CNS stimulants (amphetamine, mephentermine sulfate) are desirable. Allergic or idiosyncratic reactions are rare, but such reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses who have had no previous contact with meprobamate. Previous history of allergy may or may not be related to incidence of reactions. Mild reactions are characterized by itchy urticarial or erythematous maculopapular rash, generalized or confined to groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema and fever have been reported. One fatal case of bullous dermatitis following intermittent use of meprobamate with prednisolone has been reported. If allergic reaction occurs, meprobamate should be stopped and not reinstituted. Severe reactions, observed very rarely, include angioneurotic edema, bronchial spasms, fever, fainting spells, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case) and hyperthermia. Treat symptomatically as with epinephrine, antihistamine and possibly hydrocortisone. Aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis and hemolytic anemia have occurred rarely, almost always in presence of known toxic agents. A few cases of leukopenia, usually transient, have been reported on continuous administration.

Meprobamate may sometimes precipitate grand mal attacks in patients susceptible to both grand and petit mal. Extremely large doses can produce rhythmic fast activity in the cortical pattern. Impairment of accommodation and visual acuity has been reported rarely. After excessive dosage for weeks or months, withdraw gradually (1 or 2 weeks) to avoid recurrence of pretreatment symptoms (insomnia, severe anxiety, anorexia). Abrupt discontinuance of excessive doses has sometimes resulted in vomiting, ataxia, tremors, muscle twitching and epileptiform seizures. Prescribe very cautiously and in small amounts for patients with suicidal tendencies. Suicidal attempts have resulted in coma, shock, vasomotor and respiratory collapse and anuria. Excessive doses have resulted in prompt sleep; reduction of blood pressure, pulse and respiratory rates to basal levels; and occasionally hyperventilation. Treat with immediate gastric lavage and appropriate symptomatic therapy. (CNS stimulants and pressor amines as indicated.) Doses above 2400 mg./day are not recommended.

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The Woman's Auxiliary

REPORTS TO ISMA

As the month of January draws to a close, the thoughts of our state auxiliary turn to planning for our annual House of Delegates which will be held in Indianapolis during the month of April.

The year 1967-68 is passing all too rapidly. It leaves one with a sense of frustration. There is much more than could be done but time is running out. We have already received requests for progress reports from the national auxiliary; one requested report is on the progress of auxiliary membership in our state. Dr. Rouse has requested a 10,000 increase in auxiliary membership on a national basis for 1967-68. Every auxiliary member must work harder if we are to achieve this goal. We must learn to seek memberships. Doctor—will you please ask your wife if she has joined the auxiliary this year? It is not too late to send in dues. We are so hopeful that Indiana will do her share in achieving the national goal.

Also during this month there will be meetings of the auxiliary Bylaws Committee, Executive Committee and the Nominating Committee. It is always exciting when our members meet together to plan for the future of our auxiliary — it takes time and thought on the part of these dedicated ladies.

For most of us, the holiday season just past was a time of joy, spent and shared with family and old friends. Now we return to the routine of constructive living. May the year 1968 be a happy year for each of you.

Roberta P. Deever

Before prescribing, see complete prescribing information in SK&F literature or *PDR*. A brief precautionary statement follows.
Contraindications: Glaucoma, prostatic hypertrophy, stenosing peptic ulcer, pyloroduodenal obstruction, or bladder neck obstruction.
Precautions: Use cautiously in the presence of hypertension, hyperthyroidism, coronary artery disease; warn vehicle or machine operators of possible drowsiness.
Usage in Pregnancy: Use cautiously, especially in the first trimester. *Note:* The iodine in isopropamide iodide may alter PBI test results and will suppress I^{131} uptake; discontinue 'Ornade' one week before these tests.
Adverse Reactions: Drowsiness; excessive dryness of nose, throat or mouth; nervousness; insomnia. Other known possible side effects of the individual ingredients: nausea, vomiting, diarrhea, rash, dizziness, fatigue, tightness of chest, abdominal pain, irritability, tachycardia, headache, difficulty in urination. Thrombocytopenia, leukopenia and convulsions have been reported but no causal relationship has been established.

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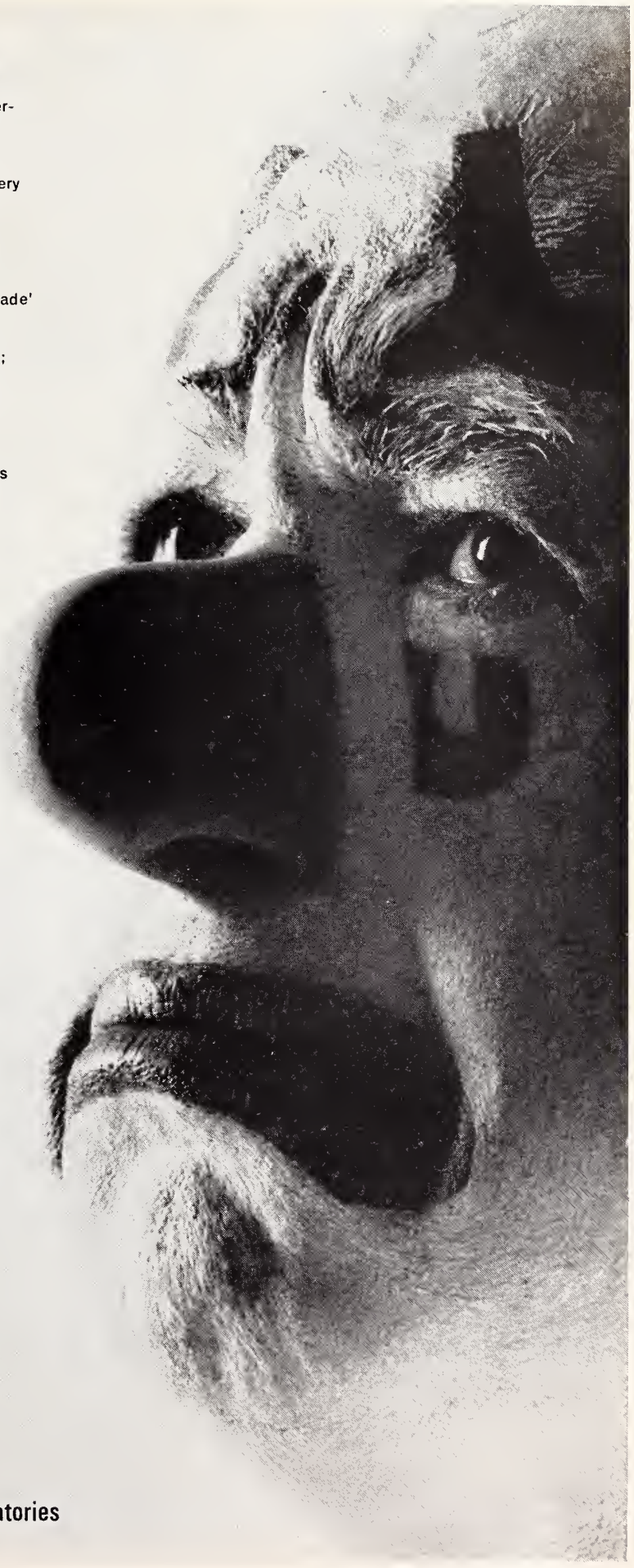

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Personal Observations of Medicine and Surgery in Indiana*

GOETHE LINK, M.D.
Indianapolis

THESE observations began some 80 years ago. My father, a college graduate with a master's degree and a life-time teachers license, was graduated from Ohio Medical College in 1885. While there, he took a special course in surgery under Ransahoff who held an F.R.C.S. degree.

Father began in a small town in southern Indiana where he did general practice and such surgical operations as were needed: amputations, trephining, etc. He later went to Philadelphia and studied asepsis and abdominal surgery with Joseph Price. We then moved to Petersburg, Indiana, the county seat.

I was graduated from Petersburg High School and entered Indiana University in the class of 1898. Later I read medicine in my father's office together with another student. Father was always a preceptor of one or two medical students. I entered the Central College of Physicians and Surgeons at Indianapolis and was graduated in 1902. Ours was the first four-year class; previously only three years were required. There were few students at that time in medical school who had been to college. In fact many were not even high school graduates.

It was my job to take those from my district to Shortridge High School in Indianapolis where the superintendent gave them a superficial examination and certified their educational fitness to be admitted to the medical college. Many of the leading doctors had never attended medical college; they had "read medicine" in a doctor's office, learned what they could from their preceptor and started out on their own. These physicians were always referred to by the college educated M.D.'s as "*mast-fed* doctors," an analogue borrowed from agriculture which referred to those hogs never fed at the barn but who foraged on the floor of the forest for the mast: beech nuts and especially acorns. Whiskers, an evidence of maturity, were a sine que non in getting a practice.

During my four years in medical school, father filled my summer vacations with intensive teaching and training in medicine and surgery. I attended all operations, both surgical and obstetrical and frequently assisted. By my senior year I had had 35 obstetrical deliveries, most of which father secured for me by offering my services free and promising to come if I needed his help. I could have had 36 cases except for the following incident. One day as we were coming into town from a call in the country, we could see, walking down the road ahead of us, a woman about ready to deliver. Father said to me, "There's another obstetrical case I'll get for you." When we came along side of the lady, he stopped the horse and said, "I see you are going to have a baby." She turned and said, "You old S.O.B., tend to your own damned business." He hit the horse with the lines and as we drove down the road turned to me and said, "She didn't need to get so mad about it!"

After graduation from medical school, I became an intern in the City Hospital. There were 50 who took the five-day competitive examination and four places to be filled. Soon after my hospital residence, father moved to Indianapolis that we might work together. My further historical references pertain to Indianapolis.

Amputation was the opus major when St. Vincent's Hospital was located at the south east corner of South and Delaware Streets in order to be near the railroad, from which most of their surgical cases came. I did my first laparotomy in that building on a colored woman with an enormous uterine fibroid in 1908.

When I began my practice I found that many of the older surgeons belonged to the pre-aseptic period and they were unable to adapt themselves to the new idea. As a consequence, wounds treated by them always suppurated. Hospital facilities were not developed and most surgeons evolved a technic for operating in the homes. I have done many major operations in the kitchen or dining room of a country home. Asepsis in hospitals at one time was so poor that an entirely clean wound healing was unusual.

After I began doing considerable thyroid surgery, I hardly dared close a wound without drainage and would have to dress a draining wound in my office for three to six weeks before I could dismiss the patient. At the end of the day, my wastebasket was full of soiled dressings to the point of stinking. (Recently I surveyed 1,000 consecutive thyroidectomies in which I closed 600 without drainage, with a negligible number of unimportant infections.)

Indianapolis "Irregulars"

The history of Indianapolis medicine and surgery would not be complete without telling of the irregulars who flourished here at one time. The Allen Orthopedic Institute was one of the most successful. It advertised

* Presented before the Section on Surgery, Indiana Chapter, American College of Surgeons, and Indiana Section, International College of Surgeons joint meeting, Oct. 10, 1967, at Indianapolis.

widely and employed traveling soliciting agents. It was located on South Illinois Street and was destroyed by a great fire which killed many patients. Dr. Allen, the proprietor, then built a large place just across the street north of the State House. When he died he left a big estate. He had a son, H. R. Allen, who was graduated from Harvard academic and medical who practiced orthopedics in Indianapolis very successfully. He attended medical society meetings regularly, taught in medical school and was the leading orthopedic surgeon in Indiana for a number of years. He favored braces over casts and was an ingenious mechanic and good surgeon.

One of the irregulars in Indianapolis was Dr. Bye who dealt with cancer cure. His establishment was at the south west corner of Meridian and 16th Streets. He worked under the cloak of religion and advertised in religious publications. He owned a small church building on Senate Avenue where he held services for his "dupes." He amassed a large fortune. His secretary, Leon Leach, became his son-in-law. Leach, one year ahead of me in medical school, was in several of my classes. He was graduated on the condition that he would not engage in irregular practice. Soon afterward Bye died, and Leach, together with two classmates, took over and continued the cancer cure business. The state board finally put an end to this enterprise.

Some great doctors also have practiced in Indianapolis. Theophilus Parvin worked here at one time, then moved to an eastern city where he was considered the most illustrious obstetrician and one of the greatest obstetrical and surgical literati in the U.S.A. J. Ewing Mears once lived here and was later the editor of the leading medical journal in the U.S.A. Both Parvin and Mears left their library to the Indianapolis Medical Society.

Two Medical Schools

Two strong groups of the regular profession each organized a medical school. Since the surgeons were more aggressive and active, they became the leaders. About them rallied their adherents and friends, enough to make up a faculty. These were called proprietary schools.

The best known surgeon was Dr. Joseph Eastman, Sr. His medical school was the Central College of Physicians and Surgeons. The other medical school was called the Indiana Medical College. Dr. Eastman did the first sucessful full term extra-uterine caesarean in the world, saving both mother and child. He also did pioneer work in hysterectomy for uterine fibroids. I have seen him operate many times. He had great composure; almost a cold blood. Though he topped the other group with a reputation which was not only national but international, he was a poor politician, and they were able to deprive him of the use of the only hospitals in Indianapolis. So he built his own private hospital which was operated for many years at the south east corner of Delaware and Vermont Sts. Dr. Eastman did not hesitate to plague his competitors and enemies at every opportunity. Each year he made a pep talk to the student body at his medical school exhorting them to greater effort and better work. He always finished his talk by saying: "There is lots of room at the top, and it is very lonesome up here." This was greeted by loud and prolonged applause from the solid body of admirers.

Doctor Eastman had two sons, Thomas B. and Joseph Rilus Eastman, both of whom became distinguished surgeons. Joseph Rilus Eastman was the father of our own highly esteemed Joseph Eastman. Tom Eastman was a good surgeon—impulsive, very likeable, with a good sense of humor and ready wit.

They had just imported a new nurse superintendent of surgery at the City Hospital (now called General Hospital). She was from Columbia University, had never been west of the Hudson River and was fearful of the Indians when she reached Indianapolis. When she met each Indianapolis surgeon, after a few minutes of introductory talk, she always asked: "Have you ever been to New York City?" Dr. Eastman was operating when the new superintendent came in and he was introduced to her. She watched him work a while, he made a few pleasantries, then came the inevitable question: "Dr. Eastman, have you ever been to New York City?" "Well," he said, "I stopped off there a few hours once on my way to Europe." Dr. Joseph Rilus Eastman was one of the best speakers I have ever heard and was my most admired teacher.

Splendid Surgeons

As the City Hospital was staffed chiefly by teachers from the other school, the Indiana Medical College, it gave me an opportunity to work and get acquainted with the teachers of that group.

Their oldest established abdominal surgeon was Dr. Dunning. He was a competent and respected man in his field, who had taken up surgery later in life. That circumstance usually caused the operator to be very nervous under the pressure of a laparotomy. Dr. Dunning was holding a clinic with nearly 100 students watching in the large amphitheater at City Hospital. The head nurse on surgery handed him a needle holder with a curved needle introduced backward. He held up the needle holder remarking to the crowd: "See how my needles come?" Most of the students hardly realized what had happened. The nurse broke out weeping and retired from the operation: the atmosphere was tense. Dr. Dunning really was a kindly man and after the operation was finished, attempted to make amends to the offended nurse almost on bended

knee but without much success.

Dr. George Cook, another surgeon in this group, had started as a rectal specialist and later extended his field to include gastrointestinal surgery. He was a strong character, having come here from Kentucky. He was the inventor of the Cook rectal speculum which is still in use. Dr. Cook was a rather rough, jerky operator, but he had a good basic surgical knowledge. I was helping him one night on a Negro who had been shot in the intestines. After all perforations had been sought out and closed, there was still bleeding somewhere. He looked for the bleeding source almost two hours; it was finally located behind a fold of mesentery in a most concealed place. It was two o'clock when we were finally able to close. The patient recovered. Dr. Cook had a slightly reddened nose, sometimes referred to as a whisky nose, and which, no doubt, had passed for a badge of merit in Kentucky. He stuttered, was a chain smoker and had a chronic cough which was almost constant so that when he talked to you, it was hard to tell how much was stutter and how much was cough.

One day I thought to do him a good turn, for I respected him highly. "Dr. Cook," I said, "Do you suppose that cigarette smoking might irritate the bronchi and make a cough worse?" "I don't know," he said, (cough, cough) "I never" (cough, cough) "stopped long enough" (cough, cough, cough) to find out." End of conversation.

About 1900, there were seven medical schools in Indianapolis, one in Evansville and one in Ft. Wayne. In addition to the two regular or allopathic schools in Indianapolis, there were schools to promote medical cults: physiomedical, eclectic, osteopathic and chiropractic and a rather strong group which called themselves naturopaths.

This led to the turning out of a lot of graduates—so-called—many of whom had little education since the schools from which they were graduated were not properly equipped and had no standards or very poor ones.

The elimination of the bad as well as the better proprietary schools in which Abraham and Simon Flexner played a strong role and the taking over of medical education by state universities was the final bit of evolution in medical teaching in this country and resulted in our present high standards and also a shortage of doctors. The reorganized Central College which became the medical department of Indiana University was made up of men with good educations, many from foreign schools, some from Johns Hopkins, and for a few years they were aided and overseen by Indiana University teachers until the state legislature authorized Indiana University to take over. I was one of sixteen doctors who effected this movement.

A Surgical Practice

In order to give you an idea of the development of a surgical practice, I will trace my own efforts to enter the field and at the same time speak of those with whom I competed.

When a medical student, there was never any other thought in my father's mind or my own but that I was to prepare for a surgical career. To this end, my father urged me to take extra work in gross anatomy. The director of the anatomical laboratory, Dr. C. O. Durham, made me his assistant. This gave me many privileges in the dissecting room such as prosecting. I also had other duties, among which was receiving material and caring for it.

I received bodies brought in by the grave robbers (called resurrectors) who supplied us with our dissecting material. One in particular I shall never forget. His name was Rufus Cantrell. He was colored and about the toughest character I have ever had to deal with. After I had opened the door, he would bring in the body from the dark alley, put it under a good light in our cellar, knock out all the gold teeth and fillings and, if a female, cut off the head of hair and put it into his pocket. One night he brought us a burked body, still warm. We refused to receive it and made him take it away. Soon after this incident he was indicted for grave robbing; he liked notoriety and talked much to the newspapers. After he was jailed, Dr. Durham visited him and told him if he even mentioned Durham or me, he would see that he was hanged for the murder of the burked body. Durham's threat was effective; he never mentioned either of us. Cantrell was sent to the penitentiary. The trial attracted so much attention that the legislature passed a law supplying material, legitimately, for anatomical use.

In the meantime, Durham had given up the laboratory which was taken over by Dr. Alexander. He was not as shrewd as Durham and was indicted and tried at the same time Cantrell was and had a narrow escape. This soured Alexander on the job and he resigned. I had just finished my internship, was starting my own practice and I was made director of the anatomical laboratory, which position I held for six years.

I was given other jobs, teaching in the department of surgery plus all the jobs no one else wanted. One was a course in operative surgery on the cadaver. All this work was a valuable opportunity, though, in preparation for my goal, surgery.

Opportunity Knocks

I had several lucky breaks in my practice. In fact, it seemed that if I got ready for something, opportunity soon knocked on my door. An operation which I had demonstrated to my class and prosected the anatomy often was tracheostomy. One night I was in my office when I received a call to come quickly: Joe Clark was choking to death. He lived

not far from my office and I really hurried. When I stepped into the house, Joe, a big fellow, was sitting in a chair fighting for air. Just as I laid out the pocket case my father had given me for a graduation present, Joe collapsed. I tried to pass a rubber catheter down the trachea but could not as the pharynx was swollen shut. I had one of the neighbors hold his head back and did a tracheostomy, inserting a female catheter which my pocket case contained. With Joe still in the chair and with the neighbor's help, we got him breathing again. I then asked for a larger tube and someone brought me a curved hard rubber vaginal syringe tip which I whittled off, got into the trachea and was able to secure. Joe's edema followed lancing of his tonsils by the family doctor a few hours previously. Joe got well. He was a very influential politician and I will show you later how this helped me.

Howard Kelley came to Indianapolis and held a clinic at the City Hospital where he demonstrated his method of catheterizing ureters in the female. I concluded that I could repeat his technic. It did not require an expensive cystoscope. I bought two Kelly endoscopes, one ureteral dilator and three ureteral catheters. I already had a head mirror and an acetylene bicycle lamp for light. I also had a neurotic patient with complaints about most every part of the body, including the bladder. It struck me that dilating her urethra and possibly her ureters would help. She welcomed my interest and efforts in her case, gladly accepted the treatments, got on the table and in a few minutes I had catheters in both ureters. I could hardly believe it myself. I treated her once a week for quite a while. Her bladder symptoms disappeared and she was very happy about it. I also acquired dexterity in ureteral catheterization.

About this time I met a doctor who said, "Link, can you catheterize the ureters?" I said, "Yes, in a woman." He said, "Have you the instruments?" I said, "Yes, and I have used them many times." He then asked if I could do it in the home to which I agreed. Next day he drove up to get me and with him were two other doctors. One was Dr. J. H. Ford, one of our leading older surgeons and chief surgeon of the Big Four Railroad. We went to a country home near Mooresville, Ind. The patient was the doctor's sister. We put her at the head end of the old fashioned sofa in lithotomy position, with a doctor on each side holding her legs folded up. I soon had a light reflected into the bladder and without much trouble was able to pass both ureteral catheters. Clear urine came from one side and urine mixed with pus and blood came from the other.

At operation, Dr. Ford said to me: "I can't see very well so after I make the incision, you go ahead and take out the kidney." That is how I got my first nephrectomy. The kidney was tubercular.

Stiff Competition

My surgical future was not developing fast enough. This was probably due to the fact that my competition in Indianapolis started about a half generation ahead of me, were men of active age, had good educations and ability. There were the two Eastmans, Tom and Rilus, Tom Noble, Sr., Ed Clark and O.G. Pfaff. They were all abdominal surgeons, the field in which I aspired to work.

I shall speak of these men, whose work is the history of surgery in Indianapolis, during my active period and knowledge. O. G. Pfaff was the leading abdominal surgeon in the Indiana Medical College group. He was a very competent operator and held a high and active social position. Ed Clark had a large practice and had worked at Johns Hopkins, which carried much weight. W. N. Wishard, one of the few men in the U.S.A. who really restricted himself to the G.U. specialty, had a long active professional life. He was succeeded by his son W. N., Jr., a worthy successor. J. H. Oliver, head of the surgical department in Indiana Medical College, was a man of pleasant presence and very popular with many friends. He enjoyed a joke. One morning I met him at St. Vincent's when he said to me, "Goethe, I have a sure remedy for postoperative vomiting." Of course I was interested. I said, "Please, Dr. Oliver, tell me what it is." Very gravely he said: "Ligation of the esophagus."

I have purposely left Thomas B. Noble, Sr. for last as I consider him the greatest surgeon of his generation in Indianapolis. He had more ability in planning and in executing a major operation than any of his confreres. He was, like Lahey, a beautiful, dextrous surgeon as well as a showman. He and Ed Clark were on the board of health together for years, as political appointees. When I tried to get on the City Hospital staff in order to acquire surgical experience, he plainly told me that I did not deserve the appointment, that I had done nothing to earn it. That was Tom Noble.

I finally got on as an alternate, an assistant, through the efforts of my friend, Joe Clark, whose life I had saved with a tracheostomy. It took me ten years to get across the table and have a service of my own. Although Dr. Noble for several years was my most active professional antagonist and critic, we remained friendly enemies. He liked to teach and frequently invited me to watch him operate, which I did with great profit. He was very critical of a doctor's doing surgery when he thought him not capable. A man who was unassuming and well liked tried to do surgery which often did

not turn out well. He did a laparotomy, a pelvic operation, and inadvertently cut a ureter. Dr. Noble was called in and removed the kidney. He made no effort to protect the surgeon, in fact exposed him with harsh words. The result was a suit for malpractice with a rather large verdict for damages against the unskilled operator. To make up for this, the insurance company raised the rates for liability insurance and we all shared in the result.

A year or more later, a doctor friend came to my office with a hemostat which he had removed from a woman's rectum. Dr. Noble had done a laparotomy on her three years previously and she had suffered ever since, finally resulting in the critical ordeal in which my friend relieved her. The patient did not know that she had passed a hemostat. My friend wanted advice as to what he should do about it. The hemostat was marked with a large N cut with a file. Dr. Noble marked all his instruments in that way. There was no question about whose hemostat it was nor how it got into the woman's rectum.

I sent my friend to Dr. Noble's office and advised him to tell how he had recovered the hemostat and that he had come there at my suggestion. Dr. Noble never showed any hostility toward me after that. He did much original work, but had such a large practice that he did not publish much.

Many of you will recall the time when hospitals were obliged to become more exacting about records. One innovation was the progress record. It took considerable pressure on the part of the nurse supervisor who was instructed to get the surgeon to make progress notes. One morning one of the nurses demanded that Dr. Noble write a progress note. "Oh," he said, "She is doing fine." The nurse said "You must write it down; tell how the wound is doing." He took the chart and wrote: "Little by little and bit by bit, God in his mercy is healing her slit."

No Classification of Staff

At this point it seems that I should tell you of a period in the development of surgery and hospitals in Indianapolis which we would like to forget. There was a time when Indianapolis hospitals had no classification of staff. Any doctor licensed by the state to practice medicine could treat a patient in an Indianapolis hospital and could do any operation he might choose to try. One man who had a large general practice decided to be a surgeon. He was very influential in the church which had just built a new hospital. Soon he was doing more laparotomies there than anyone else. His unskilful operating and high mortality became a scandal. During one of his busiest years, the interns said they checked the records and his mortality for that year was 33 1/3%!

He was not the only one in that hospital trying to do surgery without training or aptitude. One doctor attempted an appendectomy. He cut the appendiceal artery and could not get the hemorrhage stopped. He got sick, left the room and lay down on a cart in the hall. The intern finished the operation.

Dr. Gatch, a Johns Hopkins man, was a well educated surgeon and teacher. He filled his place as head of the department of surgery in Indiana University School of Medicine well and was a very important factor in raising the standards in Indiana, and Indianapolis surgery.

While I was director of the anatomical laboratory, one demonstrator, a Canadian, was a graduate of McGill. He was a good teacher and I put him to teaching the head and neck; at that time a neglected and despised part. He had a bad temper, got into a fight with his wife, there was a divorce and he went back to Canada. I could not replace him and I had to teach the head and neck myself as well as direct the laboratory. This I did for several years.

One day a doctor came to me and asked if I could tie the thyroid arteries saying he had a very bad case of hyperthyroidism. That was almost 60 years ago and there were no antithyroid drugs. I told him I could, that I was demonstrating it in my anatomy class frequently. The ligations were successful and later I did my first thyroidectomy in 1911.

Large Practice

I succeeded in building up a large practice in abdominal surgery. Among other important operations I did a successful gastrectomy. It was for cancer and the patient lived 13 years after surgery. I also did a caudal drainage of the pancreas for stones and calcinosis, which was unique. The patient lived comfortably for 30 years after.

Each year following 1911, the number of thyroidectomies gradually increased, though I met great opposition to thyroid surgery. Many doctors would treat medically any kind of a goiter for years and x-ray was used as a supposed cure. Often I was accused of doing unnecessary goiter operations and I frequently had to defend my work to the medical society. Finally so many goiter operations came to me that I had no time for other kinds of surgery and was obliged to devote almost all my energy to thyroid work. When asked why I became a thyroid surgeon, I often answered that it was because a doctor and his wife fell out. I enjoyed my work in the thyroid field which includes more than 20,000 operations, the last 2,043 without a death. There is a destiny which shapes our ends, rough hew them though we may.

If you want to learn, go to the best man in his field. My surgical teachers were my father, Joseph Price, John B. Deaver, Maurice Richardson, George Crile Sr., Frank B. Murphy and William and Charles Mayo. My method was to effect a

close and informal contact with these teachers.

From A. W. Brayton, my intimate friend, I acquired the plan of filling life as full as possible. Life is short, only an augenblick in time. You can not extend it much, but you can put more into it. Dr. Brayton knew much more about more things than anyone I have ever known. He inspired me a great deal.

I was once invited, together with two other doctors, to have dinner with Dr. William Mayo, in his home. Dr. Mayo had a stenographer sitting on each side of him at dinner. He was reading letters and dictating replies while he ate. Before dinner was quite over, he excused himself and went to his office for an important appointment. It seemed to me that to give everything in life to my professional field was too much; that I was entitled to enjoy life as I went along by entering other fields, call them hobbies if you wish.

To this end I studied astronomy, gemology, herpetology and ornithology and played golf. In the scientific fields, just as in surgery, I associated and studied with masters. This association gave me some of the most pleasant times of my life. Often when playing golf I had that guilty feeling that I should be studying and working on a professional subject instead. Now in retrospect, I don't think the time wasted. It was a means to an end—good health and longevity, although I never amounted to much as a golfer. I was always a dub. ◄

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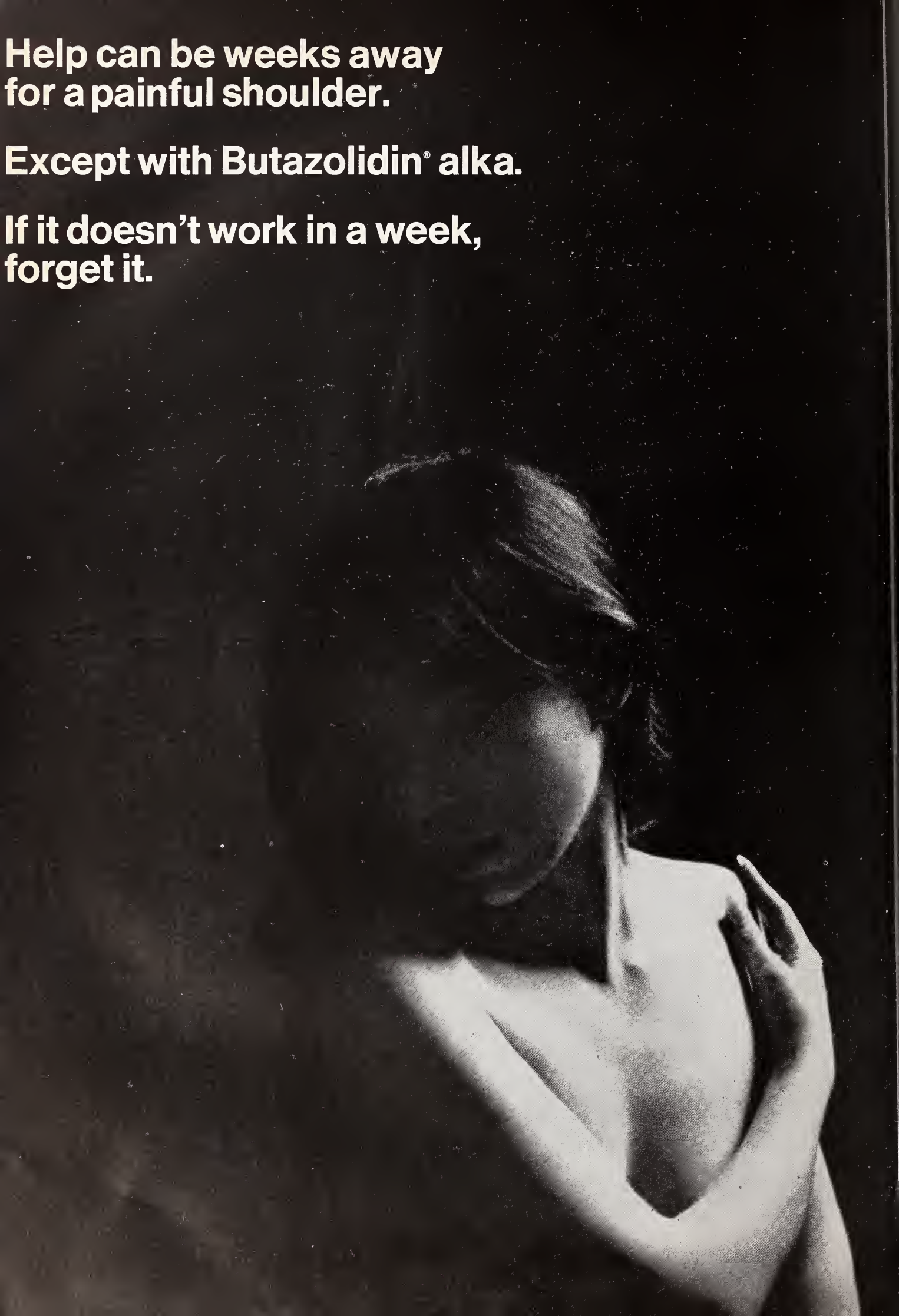
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Warning: If coumarin-type anticoagulants are given simultaneously, watch for excessive increase in prothrombin time. Instances of severe bleeding have occurred. Pyrazole compounds may potentiate the pharmacologic action of sulfonylurea, sulfonamide-type agents and insulin. Carefully observe patients receiving such therapy. Use with great caution in the first trimester of pregnancy.

Precautions: Before prescribing, carefully select patients, avoiding those responsive to routine measures as well as contraindicated patients. Obtain a detailed history and a complete physical and laboratory examination, including a blood count. The patient should not exceed recommended dosage, should be closely supervised and should be warned to discontinue the drug and report immediately if fever, sore throat, or mouth lesions (symptoms of blood dyscrasia); sudden weight gain (water retention); skin reactions; black or tarry stools or other evidence of intestinal hemorrhage occur. Make regular blood counts. Discontinue the drug immediately and institute countermeasures if the white count changes significantly, granulocytes decrease, or immature forms appear. Use greater care in the elderly and in hypertensives.

Adverse Reactions: The most common are nausea, edema and drug rash. Swelling of the ankles or face may be minimized by withholding dietary salt, reduction in dosage or use of diuretics. In elderly patients and in those with hypertension the drug should be discontinued with the appearance of edema. The drug has been associated with peptic ulcer and may reactivate a latent peptic ulcer. The patient should be instructed to take doses immediately before or after meals or with milk to minimize gastric upset. Mild drug rashes frequently subside with reduction of dosage. However, rash accompanied by fever or other systemic reactions usually requires withholding medication. Purpuric rash has also been reported. Agranulocytosis, exfoliative dermatitis, Stevens-Johnson syndrome, or a generalized allergic reaction similar to serum sickness may occur and require permanent withdrawal of medication. Stomatitis, salivary gland enlargement, vomiting, vertigo and languor may occur. Leukemia and leukemoid reactions have been reported. While not definitely attributable to the drug, a causal relationship cannot be excluded. Thrombocytopenic purpura and aplastic anemia may occur. Confusional states, agitation, headache, blurred vision, optic neuritis and transient hearing loss have been reported, as have hyperglycemia, hepatitis, jaundice, and several cases of anuria and hematuria. With long-term use, reversible thyroid hyperplasia may occur infrequently. Moderate lowering of the red cell count due to hemodilution may occur.

Dosage in Painful Shoulder: Initial: 3 to 6 capsules daily in 3 or 4 equal doses. Trial period: one week. Maintenance dosage should not exceed 4 capsules daily; response is often achieved with 1 or 2 capsules daily.

6509-V(B)82

Butazolidin® alka Geigy

Capsules
phenylbutazone, 100 mg.; dried aluminum hydroxide gel, 100 mg.; magnesium trisilicate, 150 mg.; homatropine methylbromide, 1.25 mg.

For complete details, please see full prescribing information.

Geigy Pharmaceuticals
Division of Geigy Chemical Corporation
Ardsley, New York 10502

News from Indiana University School of Medicine

The Indiana University School of Medicine and the Krannert Institute of Cardiology of the Marion County General Hospital are jointly committed to a rapidly expanding comprehensive clinical and research effort in the field of coronary artery disease, the number one health problem in the United States.

Importance of the work here was emphasized by the assignment of a medical officer from the U. S. Public Health Service's Heart Disease Control Program, a division of the U.S.P.H.S. National Center for Chronic Disease Control in Arlington, Va., to the program.

Dr. Oscar J. Cogan of the Heart Disease Control Program has been given a two-year assignment to work with Dr. Charles Fisch, chief of the Indiana University Division of Cardiology and director of the Krannert Institute. The purpose of this and other appointments is to further investigative efforts in the field of coronary disease throughout the country and at the same time offer advanced training to U.S.P.H.S. medical officers interested in this aspect of heart disease.

Dr. Cogan, a native of Chicago, Ill. received his M.D. degree with honors in 1965 from the University of Illinois College of Medicine and served his internship and residency in internal medicine at Jackson Memorial Hospital in Miami, Fla. As a premedical student at Illinois he won the Honor's Key for scholarship and was a member of three scholarship honor fraternities. He was second in a class of 190 in medical school, where he won the Moldavsky Award for scholarship in physiology, the Merck Award for scholarship and was asked to join Alpha Omega Alpha, national medical scholarship honor society.

During his assignment to I.U., Dr. Cogan will participate in various phases of coronary heart disease programs. This will include familiarity with exercise tolerance tests, measurements of coronary blood flow and the technic of coronary cine angiography (x-ray motion pictures of the coronary arteries).

* * *

Four new faculty appointments at the Indiana University Medical Center in Indianapolis have been announced by I.U. President Elvis J. Stahr.

The new faculty appointments are:

—Dr. Elizabeth Moses, professor of nursing and chairman of the department of medical-surgical nursing in the school of nursing.

—Dr. Donald F. Bowers Jr., associate professor of pedodontics in the school of dentistry.

—Dr. Alvin M. LoSasso, assistant professor of anesthesiology in the school of medicine.

—Donald B. Rice, assistant professor of neurology in the school of medicine in Indianapolis and assistant professor of education in the school of education at Bloomington.

Dr. Moses assumed her new posts Feb. 1; the other appointments were effective last year.

Dr. Moses has taught since 1962 at the University of California at Berkeley, where she earned the Ph.D. degree. She formerly was a faculty member at Duke University and the University of Pittsburgh, where she received the B.S. and the M.Ed. degrees.

Dr. Bowers, who will teach clinical pedodontics, has been a faculty member at Ohio State University since 1961. An assistant professor at Ohio State, he holds a D.D.S. from Ohio State and an M.S.D. from I.U.

Dr. LoSasso was a resident in anesthesiology at the I.U. Medical Center in 1964. He is a graduate of Duke University, and received the M.D. degree from Ohio State.

Professor Rice, formerly on the Ohio State faculty, is director of special education with the Washington Township Schools, Indianapolis. He will assist in direction of the I.U. Mental Retardation Facility, and coordinate special education in the Child Development Center in Riley Hospital. Rice is a graduate of Manchester College, and holds the A.M. from I.U. ◄

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- *Funds for Medical Schools* -- Contributions may be designated for one particular school. Undesignated contributions will be distributed equally among all medical schools. No restrictions are placed on the use made of this money by the schools.
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- *Undesignated Contributions* -- Money not designated for any specific AMA-ERF program will be placed in the general fund and the Board of Directors will decide on its use, depending upon need.

AMA-ERF

American Medical Association
Education and Research Foundation
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Computers Speed Blue Shield Claims Processing

(One of a series prepared by Blue Cross-Blue Shield)

Automation and management know-how are helping Indiana Blue Shield overcome the "claims explosion."

In recent years Blue Shield has come to rely more heavily on electronic data processing equipment to serve physicians and their patients effectively and efficiently.

Last year, Indiana Blue Shield chalked up an enrollment of more than 1,750,000 persons and paid out a record $35 million in benefits. In addition, more than 200,000 persons were served under governmental health programs.

To cope with this tremendous volume, through the cooperation of Blue Cross, Blue Shield explored both member and physician needs and began developing computer capabilities for fast claims processing, improved information, greater accuracy and more simplified reporting.

Major reductions in the processing time of claims have been accomplished not only through data processing but also through increases in staff, improved training of staff and simplifications in procedures.

Blue Shield has not overlooked the role of the medical assistant in its efforts to conquer the claims. Since the inception of Medicare, Indiana Blue Shield has enlisted the support and cooperation of medical assistants, offering educational seminars and printed materials to help them handle the claims volume in the doctors' offices.

Most forms filled out by the doctor's staff generally contain the right information so that payment of claims can be made more promptly. Obviously, when the electronic equipment rejects claims for incorrect or insufficient information, the payment of claims is delayed.

Here's a brief list of things the medical assistant should watch for as she handles Blue Shield claims in the office:

* Is the date of the medical or surgical service listed on the form?
* Is the doctor's fee stated on the form?
* Has the doctor signed the form?
* Has the patient signed too?
* Is the service covered under the patient's contract?
* Have you included the patient's identification number?

Blue Shield wants to pay claims as fast as possible. The physician's medical assistant can help by taking a few extra minutes to check the claims forms.

That computer can be your friend too! ◄

W. C. Huddlestone
Public Relations Division

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Synthetic Thyroid Replacement Therapy

Letter® provides all the advantages of the synthetically pure chemical sodium levothyroxine. Dosage is precise and potency is consistently uniform.

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In addition Letter® is distinctively color coded with an identifying number stamped on each tablet to provide accurate dosage control.

Indications: Hypothyroid conditions. **Contraindications:** Thyrotoxicosis, acute myocardial infarctions unless associated with hypothyroidism. In hypothyroidism with hypoadrenalism coadministration of corticoids with LETTER® is recommended. **Precautions and Side Effects:** Excessive dosage may result in diarrhea, cramps, palpitation, nervousness, rapid pulse, sweating. If symptoms appear, discontinue medication for several days, then reinstitute at a lower level. Since myxedema patients with heart disease may suffer seriously from abrupt increases in dosage, caution should be exercised in adjusting dosage. **Dosage:** Generally, the initial adult dosage is 0.1 mg. daily. This may be increased in small increments every one to three weeks until proper metabolic balance is achieved. **Available:** Bottles of 100 tablets, in six potencies: 0.025 mg. (violet), 0.05 mg. (peach), 0.1 mg. (pink), 0.2 mg. (green), 0.3 mg. (yellow), and 0.5 mg. (white).

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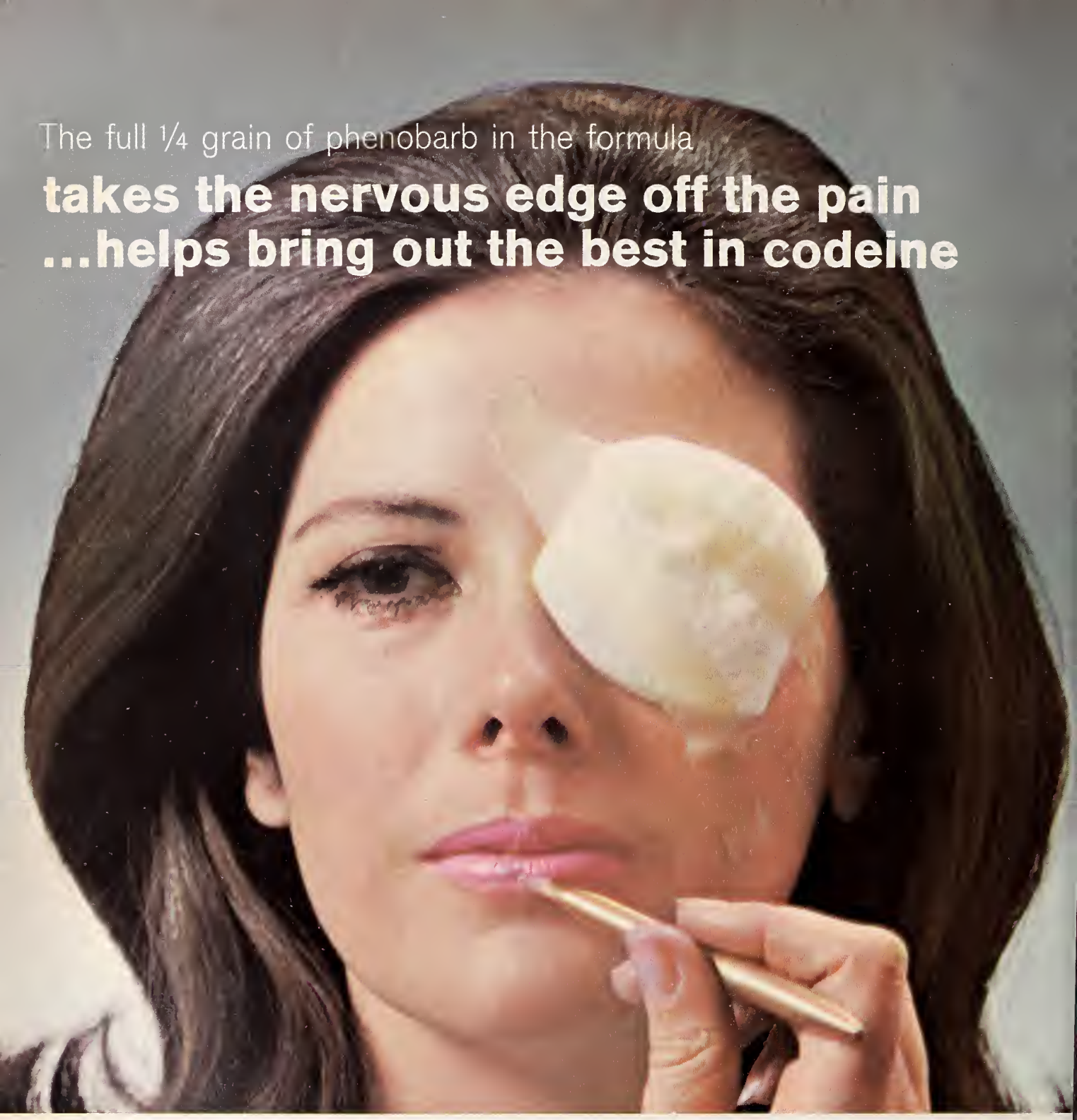

Phenaphen® with Codeine

the only leading compound analgesic that calms instead of caffeinates

Each capsule contains:

Phenobarbital (¼ gr.) ..... 16.2 mg.
(Warning: may be habit forming)
Aspirin (2½ gr.) .....162.0 mg.
Phenacetin (3 gr.) .....194.0 mg.
Hyoscyamine sulfate .....0.031 mg.
Codeine phosphate.....¼ gr. (No. 2), ½ gr. (No. 3), 1 gr. (No. 4)
(Warning: may be habit forming)

Contraindications: Hypersensitivity to any ingredient.

Precautions: As with all phenacetin-containing products, avoid excessive or prolonged use.

Side Effects: Side effects are uncommon—nausea, constipation, and drowsiness have been reported.

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For your impatient cold patients

Two sprays from NTZ Nasal Spray—and nasal congestion, rhinorrhea, sneezing are reduced for *immediate* comfort for patients with colds.

NTZ is more than a simple vasoconstrictor. It contains:

Neo-Synephrine® **(brand of phenylephrine) HCl 0.5 per cent,** the major component, virtually synonymous with fast, efficient but gentle nasal vasoconstriction on contact.

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NTZ is well tolerated. Used in a cold it may help prevent sinusitis by opening sinus ostia and permitting drainage. It may also be used in sinusitis to help establish drainage.

The spray is best used twice, the second a few minutes after the first, repeated every three or four hours as needed. NTZ is for temporary relief of nasal symptoms, and overdosage should be avoided.

Supplied: NTZ Nasal Spray, plastic squeeze bottles of 20 ml.; NTZ Nasal Solution, bottles of 30 ml. (1 fl. oz.) with dropper.

Winthrop

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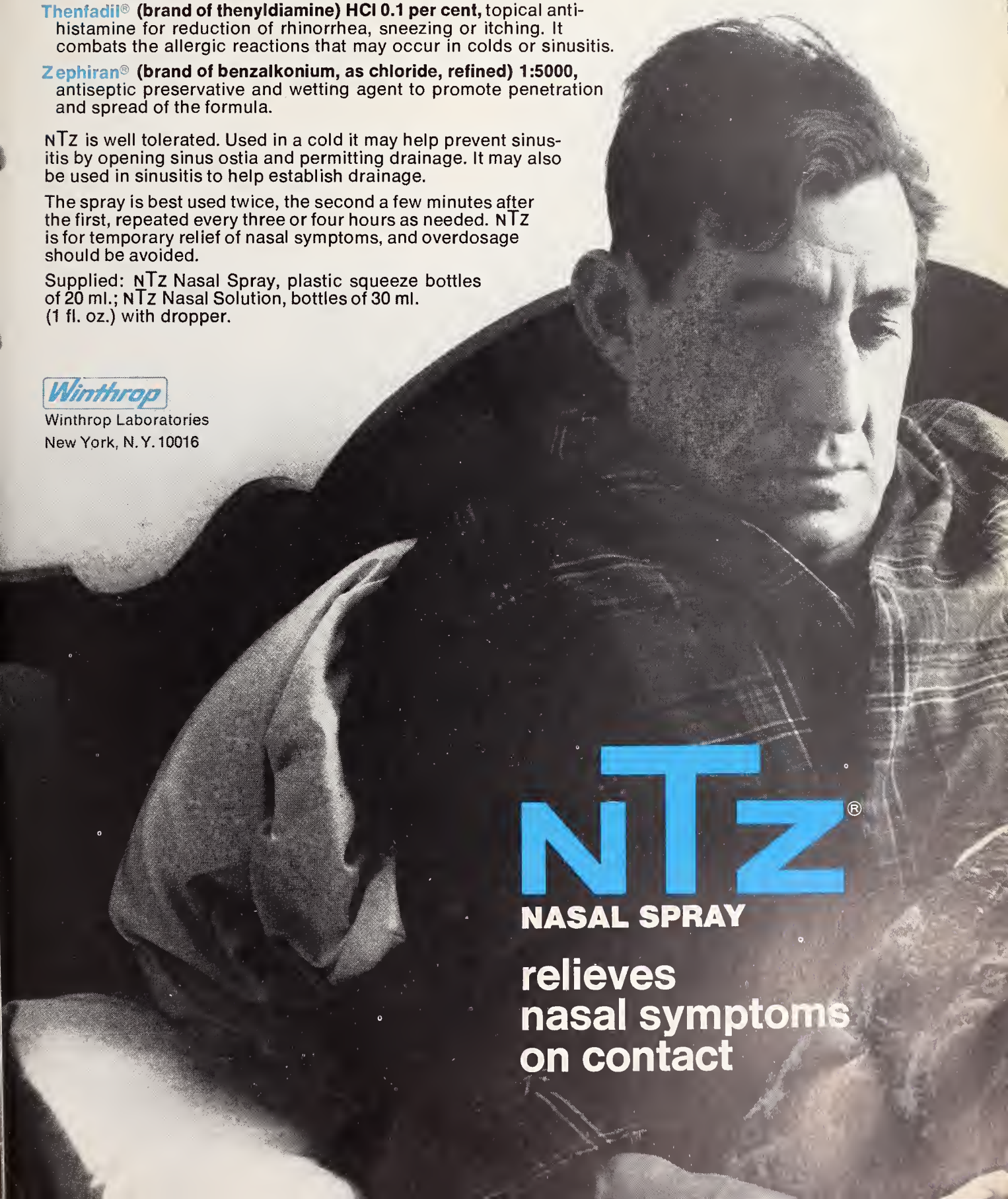
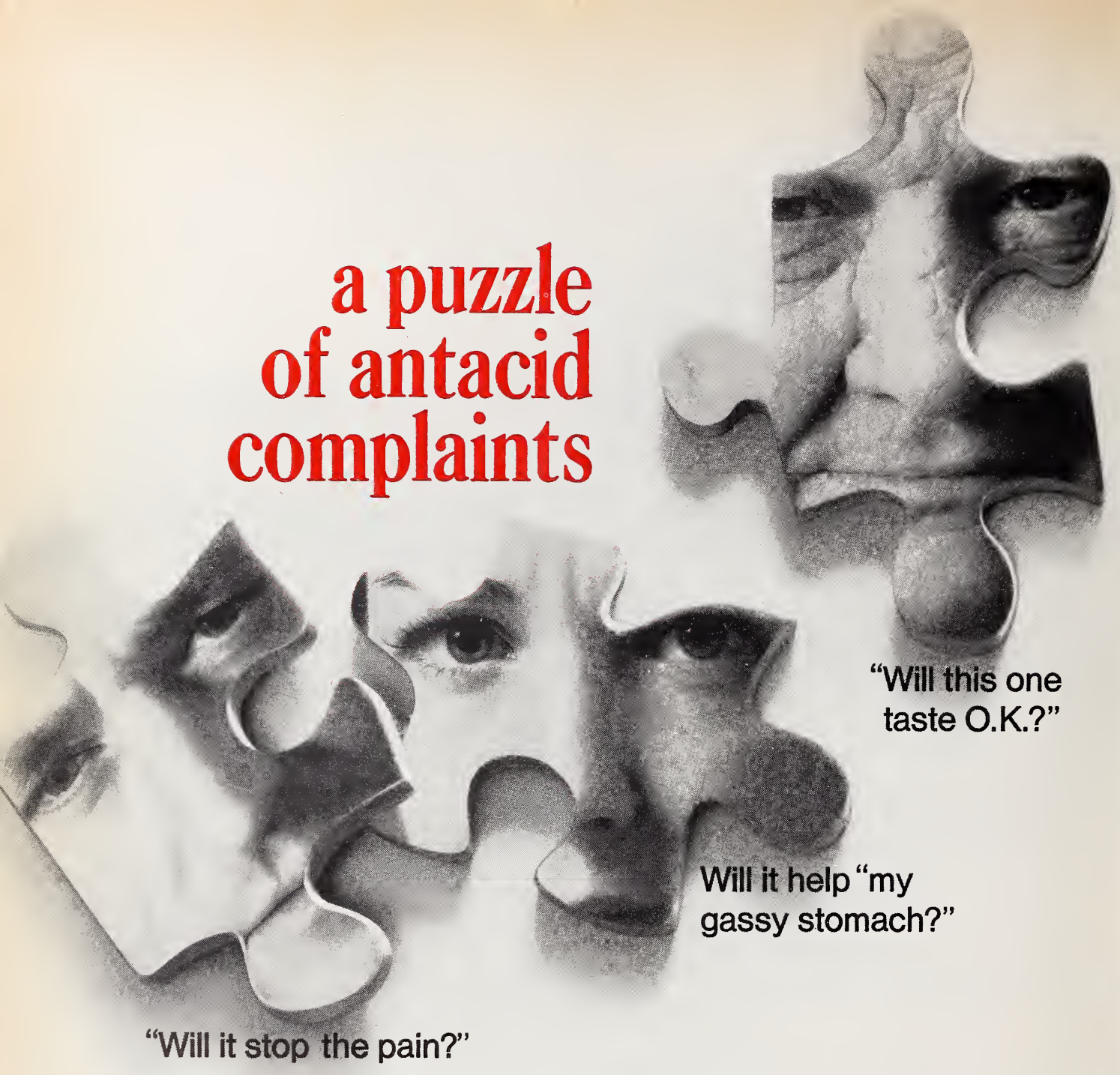


a puzzle of antacid complaints



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a solution to peptic ulcer distress

Effective neutralization—
with the two most widely prescribed antacids: aluminum and magnesium hydroxides.

Concomitant relief of G.I. gas distress—
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in 87.5% of 104 patients after a total of 20,459 documented days of therapy.[2]

Composition: Each Mylanta chewable tablet or teaspoonful (5 ml.) contains: magnesium hydroxide, 200 mg.; aluminum hydroxide, dried gel, 200 mg.; simethicone, 20 mg. Dosage: One or two tablets (well chewed or allowed to dissolve in the mouth) or one or two teaspoonfuls to be taken between meals and at bedtime.

References: 1. Hoon, J. R.: Arch. Surg. *93*:467 (Sept.) 1966.
2. Danhof, I. E., Personal communication.

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Medicine At Law

DECISIONS AND OPINIONS

Highlights of recent court actions pertaining to health and medicine from *The Citation* prepared by the Law Division of AMA.

Physician Has Duty to Warn of Drug's Dangers—In a suit for damages against a physician by the father of a three-year-old patient who died allegedly as the result of his negligence in prescribing Chloromycetin for her, a trial court erred in striking from the complaint allegations as to the patient's pain and suffering and the physician's negligent failure to warn her parents of the drug's dangers, the North Carolina Supreme Court ruled.

The physician treated the patient from her birth on April 14, 1961, to January 17, 1964. During the period of June 18, 1963, to January 6, 1964, he prescribed Chloromycetin for her three times, twice for virus infections and once for tonsillitis. Although the patient had, on January 7, 1964, petechia from her waist to her feet, the physician advised that she should continue to take the drug as previously directed. The patient was found to have aplastic anemia. She died on May 9, 1964.

The father sought to recover damages for the patient's pain and suffering during the period of January 17, 1964, to May 9, 1964, and for her wrongful death. At the time of filing suit, the father obtained an order extending the time for filing complaint. In the application for the order, the father stated that the nature and purpose was to recover damages for the patient's wrongful death. The physician contended that since the father's application mentioned only the wrongful death claim, the claim for the patient's pain and suffering should be stricken from the complaint. The claims for wrongful death and for pain and suffering were separate and distinct causes of action. However, the physician's allegedly actionable negligence was the basis of both. The purpose of the requirement, in the statute providing for an extension of time for filing complaint, that the application for extension state the nature and purpose of the action was to give notice to the party against whom suit was brought. There was no reasonable ground for believing that the physician was taken by surprise by the assertion in the complaint of claims for both wrongful death and pain and suffering. Therefore, the trial court erred in striking the allegations as to the patient's pain and suffering.

The complaint contained allegations that the physician had negligently failed to warn the patient's parents of the dangerous side effects of Chloromycetin, including aplastic anemia, before obtaining their consent to its administration. The trial court granted the physician's motion to strike the allegations on the grounds that they were irrelevant and prejudicial. The supreme court said that it would not attempt to define the limit of a physician's duty to inform a minor patient's parents of the possible or probable adverse effects from the use of a prescribed drug. However, the physician was negligent if Chloromycetin was not necessary or suited for the patient's illnesses, or if he failed to warn her parents of possible or probable injurious effects of the drug which he knew or should have known of. It could reasonably be inferred from the allegations that the parents would not have consented to the administration of Chloromycetin if they had been warned of its dangers. It could not be said, as a matter of law, that the physician's alleged negligence in this respect was not a proximate cause of the patient's death. Therefore, the allegations should not have been stricken.

Sharpe v. Pugh, 155 S.E.2d 108 (N.C., June 20, 1967).

Physician's Delay Releases Malpractice Insurer—In a declaratory judgment action against a physician by his professional liability insurer, the insurer was held not liable for a claim because the physician had delayed in notifying the insurer of the claim. The physician's petition for recall and reversal of the declaratory judgment order was denied by a Florida appellate court.

The policy required the physician to notify the insurer as soon as was practicable after becoming aware of the assertion of a claim covered by the policy. A patient asserted a claim against the physician for professional negligence on October 24, 1964, and filed suit on February 20, 1965. The physician first notified the insurer

of the claim on April 1, 1965. The insurer denied liability on the ground that the physician's notice of claim was untimely. It subsequently assumed control of the patient's suit against the physician under an agreement that doing so was without prejudice to any rights that it might have to deny liability and withdraw from the case. After having moved, on December 10, 1965, to be permitted to withdraw as counsel for the physician, the insurer filed the declaratory judgment action for a determination of its rights under the nonwaiver agreement.

In this proceeding, it was the appellate court's decision holding the nonwaiver agreement valid that the physician sought to have recalled and reversed. He contended that there was a want of jurisdiction, because the sufficiency of his notice to the insurer was a question of fact and a declaratory judgment action does not lie where the only question to be determined is a question of fact.

The appellate court said that the trial court did make a finding of fact as to the sufficiency of the notice and that it did not disturb that finding. However, that finding was only incidental to the determination of the parties' rights under the nonwaiver agreement. Therefore, a declaratory judgment action did lie.

Bergh v. Canadian Universal Insurance Company, 199 So.2d 744 (Fla., June 13, 1967).

Malpractice Insurer Not Liable Because of Hospital's Untimely Notice of Claim—Because a hospital failed to notify its liability insurer of a patient's accident, the insurer was held not liable to the hospital or the patient, who had filed a malpractice suit against the hospital. The hospital's failure to notify the insurer of the patient's accident in accordance with the policy provisions was not excused by the administrator's belief that the patient would not bring suit and that, if he did, he would not be successful. The ruling, handed down by a federal trial court in Texas, was affirmed by a federal appeals court.

In December, 1961, the hospital patient, a diabetic, prevailed upon a student vocational nurse, who was fixing his bed for the night, to give him a heating pad to warm his feet. He knew that he should not have had the pad because of his diabetic condition, but she did not. The regular nurses, who knew that artificial heat should not be applied to his extremities, had denied his requests for a heating pad earlier in the evening. The patient went to sleep with the pad on his feet. His feet were severely burned the next morning. His diabetic condition prevented healing. Several months later his right leg had to be amputated above the knee.

The hospital administrator knew of the incident early the next day. He knew that the patient should not have been given the pad without specific authority from his physician. The administrator talked with the patient's physician and hospital employees who might know anything about the incident. He did not talk to the patient or his wife. On the basis of his investigation, the administrator concluded that the hospital could not possibly be held liable because of the patient's contributory negligence, and that he would make no claim against the hospital.

In April, 1962, the administrator heard that the patient's wife had told her students that the patient was going to bring suit against the hospital. He dismissed this as an idle rumor after discussing it with the patient's father-in-law, who was a hospital trustee. On September 3, 1963, the patient filed suit against the hospital in a state court. On September 6, 1963, the hospital gave notice to the insurer for the first time of the incident on which the patient's suit was based.

The policy required the hospital to give notice of an accident covered thereby as soon as practicable after its occurrence. The administrator admitted that he knew of the policy's notice requirement and that the requirement could have been satisfied by a telephone call to the insurer's local agent.

The jury returned a verdict in favor of the hospital. The jury's verdict was based on its findings that the administrator had made a full and fair investigation the day after the incident, and that he could reasonably conclude, on the basis of that investigation, that the incident was such that it could not reasonably be expected to result in any claim or liability.

The jury's verdict could be justified only on the basis of the facts as they existed in December, 1961, the court said. The verdict overlooked the information received in April, 1962, of the patient's intention to file suit. The injuries were not so slight as to preclude a reasonable probability that they would result in a claim or liability. The administrator's conclusion that there would be no claim or liability involved decisions on questions of both law and fact. The advantages of early investigation and handling of claims is well known to all who have had experience with personal injury cases. The insurer could not be deprived of those advantages by the judgment of the administrator, which was possibly biased, on the questions of law and fact that were involved here, the court said.

Boston Insurance Company v. Malone and Hogan Hospital Foundation, 269 F. Supp. 19 (D.C., Tex., Sept. 30, 1966); affirmed 378 F. 2d 362 (C.A. 5, June 2, 1967).

Physicians Not Liable for Death from Ruptured Appendix—A trial court properly granted two physicians' motion for summary judgment in a suit against them for damages for a patient's death from a ruptured appendix following surgery, a Texas intermediate appellate court ruled.

The complaint alleged that the

physicians were negligent in that they failed to operate for four days before the surgery was actually performed, although they knew or should have known that surgery was necessary, or alternatively, that they were negligent in operating when the patient's condition was in an advanced stage of deterioration, without taking proper steps to prevent the spread of infection. There can be no recovery against a physician for malpractice, either in diagnosis or treatment, in the absence of proof by a physician of the same school of practice that the diagnosis or treatment constituted negligence, and that such negligence was a proximate cause of the patient's injuries. There was no such proof here.

Kovac v. Hicks, 416 S.W.2d 496 (Tex., May 26, 1967; rehearing denied, June 23, 1967).

Death from Blood Mistyping Not Barred by Statute of Limitations—A suit against a hospital for a child's postnatal death, allegedly caused by its negligent mistyping of his mother's blood, was allowable under the Wrongful Death Act, the Mississippi Supreme Court ruled. The trial court erroneously dismissed the suit on the ground that it was barred by the malpractice statute of limitations.

The mother's blood was typed as A-RH positive on April 4, 1958, when she was confined in the hospital. She was given a card to that effect. On December 16, 1964, when she entered another hospital for the delivery of the child, she was asked her blood type. She gave the information she had been given as the result of the 1958 test.

It became apparent after the child's birth that there was something physically wrong with it. A retyping of the mother's blood disclosed that she was A-RH negative. The child died shortly thereafter. It was alleged that when the mother's true blood type was learned, it was too late to change the child's blood by transfusion, and that the child's death was, therefore, caused by the 1958 mistyping of the mother's blood.

The trial court held that the suit was one for malpractice and that it was, therefore, barred by the six-year statute of limitations applicable to such suits. In its ruling, the trial court applied the general rule that a cause of action for malpractice accrues, and the statute of limitations begins to run, on the date of the wrongful act, rather than from the time of the discovery thereof.

The question raised was whether the complaint alleged a cause of action for malpractice or one under the Wrongful Death Act. Where a cause of action under the Act is alleged, the date of death is controlling. The complaint alleged a cause of action under the Act. It alleged that the child was caused to lose its life as the direct and approximate result of the hospital's negligence in mistyping the mother's blood.

Smith v. McComb Infirmary Association, 196 So.2d 91 (Miss., March 6, 1967).

Nurse's Fall While on Way Home, But "On Call," Compensable Accident—A nurse employed by a visiting nurse association was entitled to disability benefits, under the Workmen's Compensation Act, for injuries sustained when she was on her way home, after being told to go home early but to remain "on call" until her regular quitting time. She was injured in the course of her employment, the Supreme Judicial Court of Massachusetts ruled.

The nurse worked from 8:30 a.m. to 4:30 p.m. five days a week. After completing her assigned calls during the morning of the day on which the fall occurred, the nurse reported for further instructions. She was told to put the association's car in the garage and go home, because of a severe storm that was going on, but to remain "on call" until her regular quitting time. She fell and injured her wrist while walking home after putting the car in the garage.

The injury was compensable. Before the injury there was no break in time when it could be said that the nurse was not acting subject to her employer's instructions and in the course of her employment.

In re Rupps Case, 227 N.E.2d 329 (Mass., June 7, 1967).

Fact Issues Raised in Suit for Death During Labor—A physician and a hospital were not entitled to summary judgment in a suit against them for damages for a patient's death during labor as the result of a pulmonary edema due to amniotic fluid embolism. The evidence raised issues of fact as to whether the physician and the hospital were negligent in their care and treatment of the patient, a Florida appellate court ruled. Therefore, the trial court erred in granting summary judgment.

The physician gave the patient pitocin to induce labor. She began to go into labor and was admitted to the hospital at 5:30 p.m. On the physician's order, a nurse gave her pitocin at regular intervals until 9:30 p.m. Her labor proceeded slowly but normally until 12:15 a.m., at which time she was given an injection of Demerol and scopolamine on the physician's order. Within 30 seconds her face began to darken and her head hyperextended. She died 30 seconds later of amniotic fluid embolism. A caesarean performed by the physician in an attempt to save the child was unsuccessful.

A material issue of fact existed as to whether the physician was negligent, in view of the patient's weight problem and prior history of miscarriages, in administering pitocin to induce labor without obtaining an obstetrical consultation, which might have led to a caesarean. As to the hospital, an issue of fact existed as to whether it had exercised the higher standard of care required by the fact that the patient was in labor and about to deliver a child.

Lab v. Hall, 200 So.2d 556 (Fla., June 27, 1967; rehearing denied, July 18, 1967). ◄

in moderate hypertension and
poorly controlled mild hypertension
(when diuretics or sedatives are inadequate, for example)

When your patients expect a lot...

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chlorthalidone 50 mg., reserpine 0.25 mg.

Indications: Hypertension. **Contraindications:** History of mental depression, hypersensitivity, and most cases of severe renal or hepatic diseases. **Warning:** With the administration of enteric-coated potassium supplements, which should be used only when adequate dietary supplementation is not practical, the possibility of small-bowel lesions (obstruction, hemorrhage, and perforation) should be kept in mind. Surgery for these lesions has frequently been required and deaths have occurred. Discontinue coated potassium-containing formulations immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occur. Discontinue one week before electroshock therapy, and if depression or peptic ulcer occurs. *Use in pregnancy:* Regroton should be used in pregnant patients or in women of childbearing potential only when, in the judgment of a physician, its use is deemed essential to the welfare of the patients; adverse reactions (thrombocytopenia, hyperbilirubinemia, altered carbohydrate metabolism, etc.) are potential problems in the newborn.
Precautions: Antihypertensive therapy with Regroton should always be initiated cautiously in postsympathectomy patients and in patients receiving ganglionic blocking agents, other potent antihypertensive drugs, or curare. Reduce dosage of concomitant antihypertensive agents by at least one-half. To avoid hypotension during surgery, discontinue Regroton therapy two weeks prior to elective surgical procedures. In emergency surgery, use, if needed, anticholinergic or adrenergic drugs or other supportive measures as indicated. Because of the possibility of progression of renal damage, periodic kidney function tests are indicated. Discontinue if the BUN rises or liver dysfunction is aggravated. Hepatic coma may be precipitated. Electrolyte imbalance, sodium and/or potassium depletion may occur. If potassium depletion should occur during therapy, Regroton should be discontinued and potassium supplements given, provided the patient does not have marked oliguria. Take particular care in cirrhosis or severe ischemic heart disease and in patients receiving corticosteroids, ACTH, or digitalis. Salt restriction is not recommended. Use cautiously in patients with ulcerative colitis or gallstones (biliary colic may be precipitated). Bronchial asthma may occur in susceptible patients. **Adverse Reactions:** The drug is generally well tolerated. The most frequent side effects are nausea, gastric irritation, vomiting, diarrhea, constipation, muscle cramps, headache, dizziness and acute gout. Other potential side effects include angina pectoris, anxiety, depression, bradycardia and ectopic cardiac rhythms (especially when used with digitalis), drowsiness, dull sensorium, hyperglycemia and glycosuria, hyperuricemia, lassitude, restlessness, transient myopia, impotence or dysuria, orthostatic hypotension which may be potentiated when chlorthalidone is combined with alcohol, barbiturates or narcotics, leukopenia, aplastic anemia, skin rashes, thrombocytopenia, agranulocytosis, nasal stuffiness, increased gastric secretions, nightmare, purpura, urticaria, ecchymosis, weakness, uveitis, optic atrophy and glaucoma, and pruritus. Eruptions and/or flushing of the skin, a reversible paralysis agitans-like syndrome, blurred vision, conjunctival injection, increased susceptibility to colds, dyspnea, weight gain, decreased libido, dryness of the mouth, deafness, anorexia, and pancreatitis when epigastric pain or unexplained G.I. symptoms develop after prolonged administration. Jaundice, xanthopsia, paresthesia, photosensitization and necrotizing angiitis are possible. **Average Dosage:** One tablet daily with breakfast. **Availability:** Pink, single-scored tablets in bottles of 100 and 1000. (B) 46-600-B
For details, see complete Prescribing Information.

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ABSTRACTS

BOOK REVIEWS

THIAMINE DEFICIENCY

Ciba Foundation Study Group—#28, edited by G. E. W. Wolstenholme and Maeve O'Connor, Little, Brown & Co., Boston, 1967; 46 illustrations; 163 pages.

Mankind has been acquainted with dietary deficiency diseases for a long time, indeed. However, the concept of a specific factor preventing a specific disease arose really with the work on scurvy. It was as late as 1890 that beriberi was clinically delineated. It was in the 20th century that the word vitamin was coined. We were very proud of the isolation and then the synthesis of thiamine, vitamin B_1.

Progress since World War II has made all this seem like ancient history. In the present symposium almost a score of leading investigators were gathered to discuss the *biochemical lesion* produced by thiamin deficiency. Where in the metabolic cycle does enzymatic perversion occur? What can thiamine analogues do as anti-metabolites? What are the specific brain lesions of Wernicke-Korsakoff syndrome? What happens to the metabolism of myofibrils?

Interesting and provocative! One wonders what a similar group would have to offer a dozen years hence. This volume should be in all hospital and medical school libraries. As usual, the printing and binding are good and typographical errors nil.

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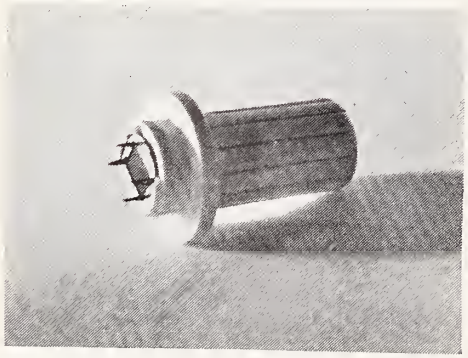

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ENDOCRINOLOGY OF THE TESTIS

Ciba Foundation Colloqium, edited by G. E. W. Wolstenholme & Maeve O'Connor, Little, Brown & Co., Boston, 1967; 331 pages with numerous tables and illustrations, $12.50.

The 26 experts who collaborated in the production of this most interesting symposium have succeeded in instructing readers on all levels. The cells of Leydig and the cells of Sertoli are the sites of production of compounds whose far-ranging effects are still not completely understood. The practicing physician will be fascinated by the detailed discussion of gonadal dysgenesis. At what point can we call the individual with complete testicular feminization a "woman" even if we know that the gonad is masculine?

The illustrations and tables are most enlightening. The molecular biology is being elucidated. The geneticist will have much material offered for contemplation.

As usual, the printing and type are good and typographical errors non-existent. This is an excellent volume for the shelves of the hospital library. Many doctors might want a copy for their personal perusal in leisure hours.

ARNOLD LIEBERMAN, M.D.
New York, N. Y.

Abstracts From Various Literature, Prepared by AMA

OBSERVATIONS ON THE CHROMOSOMAL, CYTOLOGICAL, AND ANATOMICAL CHARACTERISTICS OF 75 HUMAN CONCEPTUSES

R. J. Schlegel et al. (Department of Pediatrics, State University of New York, Upstate Medical Center, Syracuse, N. Y.)

Cytogenetics 5:430-446, (No. 6), 1967.

Chromosome studies were successfully carried out on histologically identified tissues from 30 to 67 spontaneously aborted and eight full-term products of conception. The anatomical structure of the amnion and chorion was normal in the eight full-term cases and in 27 of the aborted specimens, each of which was found to have a normal chromosome complement. In three aborted specimens there were placental abnormalities consisting of hydatidiform degeneration of the chorionic villi, chorionic cysts and arborizing amniotic polyps. Giant cells were scattered through the bases, stems, and dilated tips of the amniotic polyps. These abnormal cases had triploid XXY/diploid XY, triploid XXX and triploid XYY karyotypes, respectively. In one specimen cultured cells from both the amnion and the embryo yielded triploid XXX karyotypes. The mean nuclear diameter of triploid amnion cells was found to be significantly greater than that of diploid amnion cells in the fresh tissue state and in tissue culture.

DEVELOPMENT OF A COMPUTER-ASSISTED INSTRUCTION PROGRAM IN A MEDICAL CENTER ENVIRONMENT

W. G. Harless (University of Oklahoma Medical Center, Oklahoma City)

J. Med. Educ. 42:139-145, (Feb.) 1967.

The student tutored by the computer has been severely restricted by the computer's lack of imagination concerning the interpretation of his response. This problem is finally nearing solution by

use of the key letter and key word algorithms developed by programming theorists. A cardiologist at the University of Oklahoma Medical Center has prepared a course now being used by graduate students in the medical sciences. The course is called Medical Backgrounds and is designed to give the student some understanding of the fundamentals of the medical sciences. Medical etymology and terminology is certainly an important part of the course. The computer-aided instruction technique is used to present a preview of the terminology to be used in each lecture. After the lecture, the student is exposed to a review of that material at the terminal keyboard and, during the same session, is given a preview of the terminology of the subject matter.

ONE HUNDRED FIFTY PATIENTS WITH CARDIAC INFARCTION TREATED IN A CORONARY UNIT

L. McDonald et al. (The London Hospital, London)
Lancet 1:1285-1289, (June 17), 1967.

The results of treatment of 150 consecutive patients with cardiac infarction in a coronary unit are reported. The mortality was 14%. Ten patients, who would have died without resuscitation, survived and left the hospital. Ventricular fibrillation occurred in 15 patients (10%) with a high incidence between the fourth and 15th day. Resuscitation was successful in six. Recurrent episodes of ventricular fibrillation occurred in six patients. Asystole was the common terminal arrhythmia in patients with cardiogenic "shock" and severe pulmonary edema. Resuscitation failed in these patients. Complete heart block occurred in nine patients. All were paced by endocardial catheter pacemaker in the right ventricle, and eight subsequently returned to sinus rhythm. Four patients developed ventricular asystole and resuscitation was successful. There was a high incidence of supraventricular and ventricular ectopic beats in the first 24 hours.

METHICILLIN-RESISTANT STRAIN STAPHYLOCOCCUS AUREUS: CLINICAL AND LABORATORY EXPERIENCE

R. J. Bulger (University Hospital, 1959 Pacific Ave., Seattle)
Ann. Intern. Med. 67:81-88, (July), 1967.

Two cases of infection with the same strain of methicillin-resistant *Staphylococcus aureus* are reported. Despite treatment with cephalothin, one of these patients died of his pulmonary infection. The death of the second patient was from pulmonary embolization and was not related to bacterial infection. Both patients were on the same ward at the same time. This strain of *Staphylococcus*, referred to as the Seattle variant, was resistant to penicillin G, methicillin, erythromycin, chloramphenicol, tetracycline, streptomycin, kanamycin and cephalothin. Results of detailed laboratory investigations are presented and indicate that resistance of the penicillinase-resistant penicillins was primarily a reflection of a marked innate resistance in addition to extraordinary penicillinase production, sufficient to partially inactivate methicillin. It was noted that prolonged incubation of antibiotic disk sensitivity plates may be required for the routine laboratory detection of methicillin-resistant staphylococci.

CHILDREN BORN TO PHENYLKETONURIC MOTHERS

C. H. de Menibus et al. (Hotel-Dieu, Rouen, France)
Ann. Pediat. 43:1746-1750, (June-July), 1967.

Two mothers with phenylketonuria had three and eight children, respectively. All the children, with one exception, had severe

One by one the family's downed Because the G.I. bug's around

Parepectolin for quick relief of acute diarrhea
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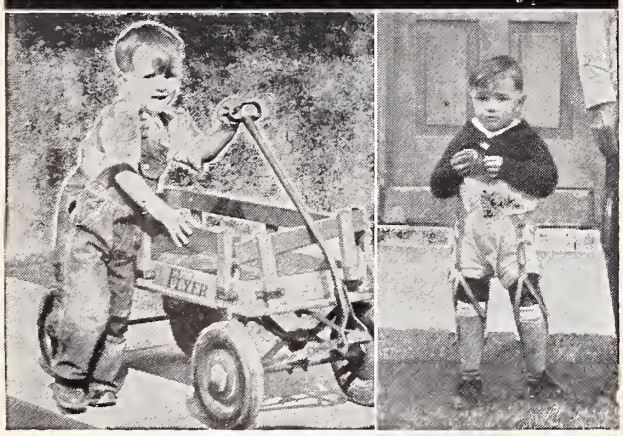

Hanger Prosthetic Appliances have brightened the present and the future for many amputees. For example, Weaver Nolt says: "My son, Lloyd, was a pathetic figure in a big hospital bed after his legs were amputated because of an accident. Today it's a big and wonderful world again as he gets along so wonderfully on his Hanger legs. He walks without any help, and runs and pushes his wagon all over the farm. That other day is just a hazy memory, and we are so pleased things are so different than we expected.

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encephalopathy with microcephaly. Among the 11 children, only one had phenylketonuria and the others were heterozygote. Beyond doubt the maternal phenylalaninemia during pregnancy was responsible for the malformations.

COOLING SYSTEM FOR IMPERMEABLE CLOTHING

J. P. Gleeson and J. F. Pisani (Defence Standards Laboratory, P. O. Box 50, Ascot Vale, Victoria, Australia)

Brit. J. Industr. Med. 24:213-219, (July), 1967.

A self-contained conditioning unit to prevent heat stress in workers wearing impermeable protective clothing has been designed and tested. The pack-mounted unit which uses liquid air has sufficient cooling capacity for one hour's work at 105 F. Circulation of the conditioning air requires no pumps or fans but depends only on the pressure built up by liquid air evaporating through a system of heat exchangers. An automatic control valve holds the cooling rate at any desired level.

VALUE OF PREOPERATIVE RADIATION THERAPY IN STAGE I CARCINOMA OF THE UTERINE CORPUS

J. F. Nolan, M. E. Dorough (Los Angeles Tumor Institute, Los Angeles), and J. H. Anson.

Amer. J. Obstet. Gynec. 98:663-674, (July 1), 1967.

The possible contribution of preoperative radiation therapy on patients with operable adenocarcinoma of the uterine corpus is examined. Patients adequately treated in essentially the same environment over a 15-year period were studied. The sample included 111 patients subjected to immediate operation and 124 patients who received preoperative radiation therapy. Analysis of the patient material in the two series, according to various biological characteristics, showed only minor variations. Survival statistics were more favorable for patients receiving preliminary radiation. This was most apparent when results in patients with anaplastic lesions or large uteri were compared.

CORONARY-CARE UNIT IN THE ROUTINE MANAGEMENT OF ACUTE MYOCARDIAL INFARCTION

D. M. Lawrie et al. (M. F. Oliver, Coronary Care Unit, Royal Infirmary, Edinburgh)

Lancet 2:109-114, (July 15), 1967.

A six-bed coronary-care unit is described. As a result of the admission and discharge policy which is outlined, 624 patients were admitted to the unit from April, 1966, to May, 1967, and 400 had sustained an acute myocardial infarction. There were 70 deaths (55 in the unit, 15 in the wards after transfer) and a high proportion were due to causes such as shock, asystole and severe cardiac failure. Ventricular fibrillation developed in 44 patients and 23 (52%) left hospital after successful resuscitation. Asystole developed in 10 patients and only one left the hospital. As a result of successful treatment of cardiac arrest, the mortality was changed from 22% to 17.5%, a 20% reduction. A coronary-care unit can be expected to make the maximum impact on mortality from myocardial infarction if admission is restricted to patients whose symptoms began within the preceding 48 hours and to those who later develop serious arrhythmias while being treated elsewhere.

Continued on page 279.

Annual Meeting Dates of Professional Medical and Allied Organizations

AMERICAN MEDICAL ASSOCIATION ANNUAL CONVENTION
Date June 16-20, 1968
Place San Francisco, Calif.

NORTHERN INDIANA PSYCHIATRIC SOCIETY
Date Fourth Wednesday of every month, September through June
Place For location and program, inquire Beatty Memorial Hospital, Westville

INDIANA NEUROPSYCHIATRIC ASSOCIATION
Date Second Wednesday of the month, October through May, excluding December
Place The Athenaeum, Indianapolis

INDIANA ROENTGEN SOCIETY
Date May 5, 1968
Place Indianapolis

AMERICAN COLLEGE OF SURGEONS, INDIANA CHAPTER
Date May 17-18, 1968
Place Stouffer Inn, Indianapolis

INDIANA ACADEMY OF GENERAL PRACTICE
Date March 26-28, 1968
Place Indianapolis

INDIANA ACADEMY OF OPHTHALMOLOGY AND OTOLARYNGOLOGY
Date May 1-2, 1968
Place Culver Inn, Culver

INDIANA STATE MEDICAL ASSOCIATION CONVENTION
Date October 14-17, 1968
Place Fort Wayne

INDIANA PUBLIC HEALTH ASSOCIATION
Date April 30-May 1, 1968
Place Howard Johnson's Motor Lodge, Indianapolis

INDIANA SOCIETY OF ANESTHESIOLOGISTS
Date May 25-26, 1968
Place Marott Hotel, Indianapolis

INDIANA STATE DENTAL ASSOCIATION
Date May 19-20, 1968
Place Murat Theater, Indianapolis

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Warning: May be habit-forming.

Precautions: Tuinal should be used cautiously in patients with decreased liver function, since prolongation of effect may occur.

Adverse Reactions: Idiosyncrasy, such as excitement, hangover, or pain, may appear. Hypersensitivity reactions occur in some patients, especially in those with asthma, urticaria, or angioneurotic edema.

Overdosage: C.N.S. depression. Symptoms—Depression of respiration and of superficial and deep reflexes, slight constriction of the pupils (in severe poisoning, dilation), decreased urine formation, lowered body temperature, coma. Treatment—Symptomatic and supportive (gastric lavage; intravenous fluids; maintenance of blood pressure, body temperature, and adequate respiration). Dialysis may speed removal of barbiturates from body fluids.

Dosage: 50-200 mg. (¾-3 grains) at bedtime.

[031767]

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MONTHLY REPORT — December, 1967

Disease	Dec. 1967	Nov. 1967	Oct. 1967	Dec. 1966	Dec. 1965
Animal Bites	400	616	760	495	460
Chickenpox	505	422	91	350	389
Conjunctivitis	59	36	42	63	101
Diphtheria	0	0	1	0	0
Dysentery, Unspecified	124	40	33	30	55
Gonorrhea	461	581	398	579	432
Impetigo	120	156	204	110	129
Infectious Hepatitis	43	69	63	43	46
Infectious Mononucleosis	89	82	53	53	79
Influenza	2944	1005	777	644	1305
Measles					
Rubeola	35	26	24	52	232
Rubella	27	21	21	40	74
Meningitis, Meningococcal	1	5	1	4	5
Meningitis, Other	1	11	3	4	7
Mumps	337	314	65	306	168
Pertussis (whooping cough)	7	18	24	17	0
Pneumonia	204	189	153	240	418
Poliomyelitis	0	3	0	1	0
Streptococcal Infections	692	697	446	472	589
Syphilis					
Primary & Secondary	28	28	29	3	14
All Other Syphilis	106	92	51	95	86
Tinea Capitis	8	21	2	15	15
Tuberculosis (active)	88	100	65	128	105

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RESULTS OF TESTING A CHILD-RESISTANT MEDICINE CONTAINER

C. E. Stracener, R. G. Scherz, and R. I. Crone (Madigan General Hospital, Tacoma, Wash.)

Pediatrics 40:286-287, (Aug.), 1967.

Despite extensive educational and legislative programs, the overall mortality of childhood poisoning has scarcely decreased since 1954. Ingestion of medicines is a frequent cause. A practical, inexpensive child-resistant medicine container was developed to meet this challenge. This report describes the results of testing the ability of children to open a container which requires two distinct, coordinated maneuvers: (1) depression of the cap against a resistant force and (2) a counter-clockwise turn of 45°. Of 300 children, 292, one to 12 years of age, were unable to open the child-resistant container without a demonstration. No child aged three years, 11 months or younger was able to open the container with two demonstrations. Published figures indicate that the greatest percentage of accidental childhood poisonings occur in the child under age five years. The container tested was found to be an effective barrier.

IN VIVO STAINING OF THE PARATHYROID GLANDS AND PANCREAS

R. J. Hurvitz, J. S. Hurvitz, and L. Morgenstern (4833 Fountain Ave., Los Angeles)

Arch. Surg. 95:274-277, (Aug.), 1967.

Toluidine blue when injected intravenously into dogs preferentially concentrates in the parathyroid glands and pancreas, imparting a distinct bluish coloration to these glands. The clinical applications of this phenomenon, if transferable to man, would be: (1) to facilitate gross identification of the parathyroid glands during thyroid and parathyroid surgery, (2) to facilitate gross identification of pancreatic tissue during surgery for suspected pancreatic heterotopia, and (3) to develop an external scanning procedure for the parathyroid glands and pancreas. All of these clinical applications are currently being investigated.

LONG-TERM RESULTS OF ENDARTERECTOMY OF INTERNAL CAROTID ARTERY FOR CEREBRAL ISCHEMIA AND INFARCTION

A. Heyman et al. (Duke University Medical Center, Durham, N.C.)

Circulation 36:212-221, (Aug.), 1967.

The immediate and long-term results of carotid endarterectomy for treatment of acute cerebral ischemia or infarction were studied in 95 patients who were observed for an average period of 40 months after the surgical procedure. The operation resulted in death for 12 patients and worsening of the neurological deficit in six others. During the follow-up period, there were 22 additional deaths, most of which were caused by myocardial infarction or other complications of systemic atherosclerotic vascular disease. The significant factors adversely affecting the prognosis of these patients consisted of severe electrocardiographic abnormalities, the presence of bilateral carotid occlusive lesions, cerebral infarction prior to endarterectomy and the age of the patient. Following endarterectomy, only five patients were observed to have recurrent attacks of transient cerebral ischemia which were few in number and stopped spontaneously. Recurrent cerebral infarction devel-

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* anticostive, *adj.* (*anti* opposed to + *costive* causing constipation.) Against constipation. (Now isn't that a good idea in an iron-containing hematinic?)

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Vitamin B_2	7.5 mg
Vitamin B_6	7.5 mg
Vitamin B_{12}	50 mcgm
Vitamin C	200 mg
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Folic Acid	0.05 mg
Pantothenic Acid	15 mg

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oped in only seven patients, six of whom had unsuccessful or incomplete removal of the carotid occlusive lesions.

RAPID REVERSION OF ELECTROCARDIOGRAPHIC ABNORMALITIES AFTER TREATMENT IN TWO CASES OF SCURVY

J. Shafar (Burnley General Hospital, Casterton Ave., Burnley, Lancashire, England)

Lancet 2:176-178, (July 22), 1967.

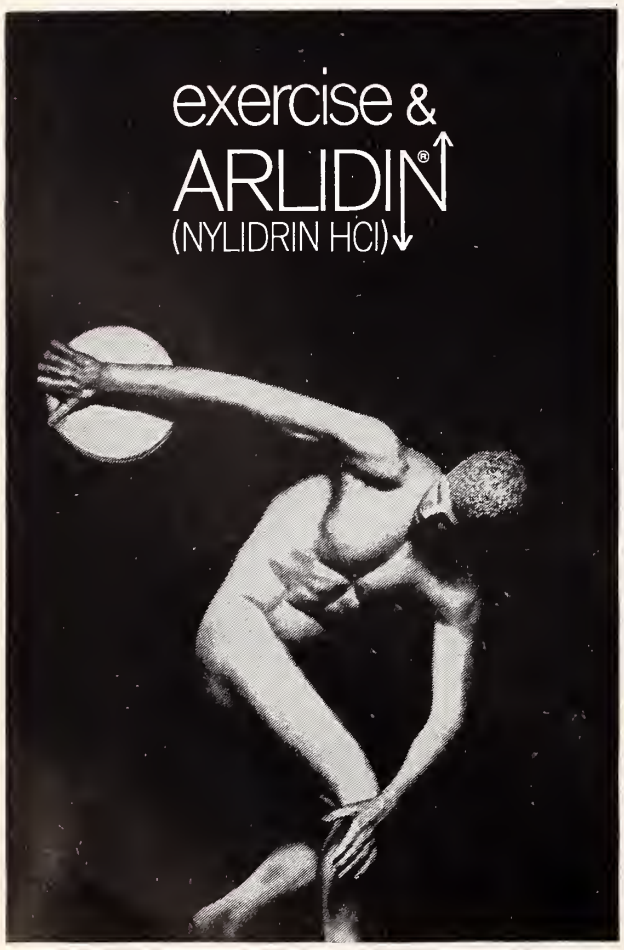
Two patients presenting with florid scurvy exhibited electrocardiographic abnormalities of a degree which could be interpreted as evidence of significant myocardial disorder, although no clinical features of cardiac disease were evident. After a week of ascorbic acid therapy the tracings reverted to normal. The possibility that such abnormalities may arise in those with subclinical deficiency states is raised, especially in view of the present prevalence of malnutrition among the elderly. It is suggested that abnormal recordings, in the appropriate circumstances, be reviewed after vitamin supplementation so that erroneous diagnostic and prognostic implications can be avoided. Ascorbic acid is no longer considered to be of value as a pharmacological agent in heart disease.

HAZARDS OF HYPERBARIC CHAMBERS

W. G. Trapp (750 W. Broadway, Vancouver, British Columbia)

Canad. Med. Assoc. J. 97:227-228, (July 29), 1967.

Recent fire accidents in simulated space vehicles have raised the question of similar hazards in a hyperbaric chamber. A variety of factors markedly reduces the risk of working in a hyperbaric chamber. Among these are sprinkler systems, and the fact that the chamber itself is filled with compressed air. The patient receives pure oxygen through a closed system, and expired oxygen is removed from the breathing system by a separate suction. Any escaping oxygen is washed out of the chamber by a large volume ventilation. Faithful adherence to decompression regulations has successfully prevented any symptoms of the bends due to exposure to compressed air. Toxic effects of pure oxygen under pressure were much lower than anticipated as long as the pressurization was kept below three atmospheres absolute (30 psi at sea level). This method of treatment has promise in the treatment of carbon monoxide poisoning, gas gangrene, congenital heart defects in cyanotic infants, severe burns and coronary occlusion.



RELATIVE RISK OF PULMONARY CANCER IN CIGAR AND PIPE SMOKERS

T. Abeline (Harvard University School of Public Health, Boston) and O. T. Gsell

Cancer 20:1288-1296, (Aug.), 1967.

Smoking habits of 118 male patients with cancer of the lung from a rural area of Switzerland were compared with those obtained in a survey of all male inhabitants of a rural town in the same region. Adjusted relative risks of pulmonary cancer were computed for cigar and pipe smokers in relation to cigarette smokers. Adjustment was made for amounts smoked among cigarette smokers, and an estimate of relative risk was obtained in relation to nonsmokers. Risk of pulmonary cancer for all smokers of products other than cigarettes was 5.6 times (95% confidence limits: 3.6 to 8.6) that for nonsmokers. For heavy cigar and pipe smokers the risk was 1.7 times that of cigarette smokers and 14.7 times that of nonsmokers (95% confidence limits: 8.9 to 24.4). The results of this study differ from those obtained in the United States but are compatible with findings in countries with a larger proportion of cigar and pipe smokers.

VALUE OF EXAMINING BONE MARROW IN DIAGNOSING MALIGNANCY

U. T. Slager (Orange County General Hospital, Orange, Calif.) and E. B. Reilly

Cancer 20:1215-1220, (Aug.), 1967.

During a three-year period, all patients with known or suspected cancer underwent bone marrow examination. Of 1,264 marrow specimens examined, 536 were received from 410 cases with histologically proved cancer not primary in bone marrow. The bone marrow contained metastatic cells in 41 (10%) of the specimens. It failed to reveal cancer cells in at least 21 cases with autopsy proved bone metastasis, but supplied the diagnosis of marrow metastasis in 16 cases with normal roentgenologic bone surveys. The primary diagnosis of "hidden malignancy" was established by this method in two cases. Careful attention to histological detail can provide an accurate diagnosis of metastatic cells in the marrow. Examination of both smears and tissue particles of bone marrow is a valuable adjunct in the evaluation of patients with cancer not primary in the marrow. ◄

From *The Journal* 50 Years Ago

There are two methods of surgical attack upon the obstructing prostate. The perineal and the suprapubic operation.

The perineal operation has been one of the most popular in America, and has received the endorsement of such men as Young of Baltimore and Alexander of New York. W. J. Mayo defines the specialist as a surgeon who, taking an ordinary simple procedure, makes it so difficult that nobody but himself can perform the operation without killing the patient. This applies to perineal prostatectomy. The results of this operation were not immediately successful as evidenced by the "median bar" operation which Young did as a secondary procedure in many of his cases.

Since the general adoption of the suprapubic operation and the acceptance of the dictim of Freyer of London, that the whole prostate must be removed in one piece, and that there was no harm coming from removing that portion of the prostatic urethra which was contained in the offending organ, a new era has developed in the surgery of the prostate.

The operation now in vogue and which has reclaimed prostatectomy from the field of the specialist and placed it in the hands of the general surgeon is substantially that devised by Freyer and practiced by the English surgeons for many years. Recently a few refinements have been added, notably positive control of hemorrhage by suture and less or no drainage of the suprapubic wound with positive suture of the bladder, for which we stand indebted to Judd of Rochester and Lower of Cleveland . . . . Charles M. Mix, M.D., Muncie, "Hypertrophy of the Prostate Gland, *JISMA*, February, 1918.

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(thyroid-androgen) TABLETS

*Effectiveness confirmed by another double blind study**

1.SUMMARY
ANDROID — GOOD TO EXCELLENT 75%
PLACEBO — 20%

2. Forty cases reported.
3. Cites synergism between androgen and thyroid.
4. No side effects in patients treated.
5. Alleviation of fatigue noted
6. Case histories on 4 patients.
7. Although psychotherapy still needed, role of chemotherapy cannot be disputed.

**"Sexual impotence treatment with methyl testosterone – thyroid (ANDROID) a double blind study" – Montesano, Evangelista: Clinical Medicine, April 1966.*

CONTRAINDICATIONS—Methyl testosterone is not to be used in malignancy of reproductive organs in male, coronary heart disease. Thyroid is not to be used in heart disease, hypertension unless the metabolic rate is low.

Choice of **4** *strengths*

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Each yellow tablet contains:
Methyl Testosterone . . 2.5 mg.
Thyroid Ext. (1/6 gr.) . . 10 mg.
Glutamic Acid . . . . . 50 mg.
Thiamine HCL . . . . . 10 mg.
Dose: 1 tablet 3 times daily.
Available:
Bottles of 100, 500, 1000.

Android-HP
HIGH POTENCY
Each red tablet contains:
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Glutamic Acid . . . . . 50 mg.
Thiamine HCL . . . . . 10 mg.
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Available:
Bottles of 100, 500, 1000.

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EXTRA HIGH POTENCY
Each orange tablet contains:
Methyl Testosterone . 12.5 mg.
Thyroid Ext. (1 gr.) . . . . 64 mg.
Glutamic Acid . . . . . 50 mg.
Thiamine HCL . . . . . 10 mg.
Dose: 1 or 2 tablets daily.
Available:
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Ethinyl Estradiol . . . . . 0.02 mg.
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Thiamine Hydrochloride . . . 10 mg.
Glutamic Acid . . . . . 50 mg.

INDICATIONS: Advantage is taken of the anabolic action of ANDROID without its virilizing effect. Estrogen balances the androgen—only steroid effect remains. Geriatrics, post-operative and debilitating disease, osteoporosis. **DOSE:** One tablet t.i.d. Female patients should have a rest period 5 to 7 days after 21 days of medication. **SIDE EFFECTS:** In the female, excessive dosage may produce virilizing effects of most androgens: hoarseness, hirsutism, enlarged clitoris. Symptoms can be avoided by keeping the dosage below 300 mg. of testosterone per month. **CONTRA-INDICATIONS:** See Android. Ethinyl estradiol is not to be used in latent malignancy of reproductive organs or mammary glands.

This pain is getting on my nerves.

Patients in pain often experience concomitant anxiety and tension, which may add to the burden of pain.

For such patients, you may want to prescribe a preparation that offers more than simple analgesia.

A good choice is often EQUAGESIC® (meprobamate and ethoheptazine citrate with aspirin). It helps relieve pain. And anxiety. And skeletal muscle spasm as related to pain or anxiety and tension.

Equagesic® TABLETS

(meprobamate and ethoheptazine citrate with aspirin)

Wyeth®

Contraindications: History of sensitivity or severe intolerance to aspirin or meprobamate.

Warnings: USE IN PREGNANCY: Safety for use during pregnancy or lactation has not been established; therefore it should be used in pregnant patients or women of child-bearing age only when the physician judges its use essential to the patient's welfare.

Precautions: Keep out of reach of children. Not recommended for patients 12 years old or less. Carefully supervise dose and amounts prescribed, especially for patients prone to overdose themselves. Excessive prolonged use of meprobamate may result in dependence or habituation in susceptible persons—as alcoholics, ex-addicts, severe psychoneurotics. Withdraw gradually after prolonged high dosage to avoid possibly severe withdrawal reactions including epileptiform seizures. Warn patients of possible reduced alcohol tolerance. If drowsiness, ataxia or visual disturbances (impairment of accommodation and visual acuity) occur, reduce dose. If symptoms persist, caution patients against operating machinery or driving. After meprobamate overdose, prompt sleep, reduction of blood pressure, pulse and respiratory rates to basal levels, and hyperventilation are reported. Give cautiously to patients with suicidal tendencies. Treat attempted suicide (has resulted in coma, shock, vasomotor and respiratory collapse and anuria) with immediate gastric lavage and appropriate supportive therapy (CNS stimulants and pressor amines as indicated).

Side Effects: Ethoheptazine and aspirin may occasionally cause nausea, vomiting, epigastric distress, and rarely dizziness. Overdosage may result in CNS depression (drowsiness and lightheadedness) or CNS stimulation and salicylate intoxication (requires induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, and observation for hypoprothrombinemic hemorrhage [usually requires whole blood transfusions]). Meprobamate may cause drowsiness, ataxia and rarely allergic or idiosyncratic reactions. These reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses who have had no previous contact with meprobamate. Mild reactions are characterized by urticarial or erythematous maculopapular rash. Acute nonthrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever have been reported. If allergic reaction occurs, meprobamate should be stopped and not reinstituted. Severe reactions, observed very rarely, include angioneurotic edema, bronchial spasms, fever, fainting spells, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case) and hyperthermia. Treat symptomatically such as with epinephrine, antihistamine and possibly hydrocortisone. A few cases of leucopenia, usually transient, have been reported following continuous use. Rarely, cases of aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia have been reported; almost always, in the presence of known toxic agents.

Composition: 150 mg. meprobamate, 75 mg. ethoheptazine citrate and 250 mg. aspirin per tablet.

Wyeth Laboratories Philadelphia, Pa.

ISMA JOURNAL NOW AVAILABLE ON 35 MM. MICROFILM

Starting with Volume 60 (1967), *The Journal of the Indiana State Medical Association* will be available on microfilm. The film used will be 35mm. which fits all standard viewers.

All pages of each issue from cover to cover will be reproduced. Inquiries may be addressed to University Microfilms Library Services (Xerox Corporation), 300 N. Zeeb Road, Ann Arbor, Michigan 48106.

Dr. Larson Honored

Dr. G. O. Larson, ISMA president, was named Kiwanian of the Year in ceremonies in December at LaPorte. Dr. Larson has been prominent as a layman in education, having served 17 years as a member of the board of education in LaPorte. He was among the founders of the state school boards association and is active in many other civic and community activities.

Dr. William M. Loehr Speaker for History of Medicine Society Meeting

Dr. William M. Loehr, Indianapolis radiologist, will speak on "John Shaw Billings in Switzerland County, Indiana" at the March 13 meeting of the John Shaw Billings History of Medicine Society.

The group meets at the I.U. Student Union Building, Indianapolis. The social hour begins at 6:00 p.m., dinner is set for 6:45 p.m. and the speaker at 8 p.m.

Dr. Trusler Honored

Dr. Harold Trusler, Indianapolis, recently was honored by several plastic surgeons who dedicated a trust in his honor. Dr. Trusler is professor of surgery and former director of the plastic surgery section at the Indiana University School of Medicine. The trust fund will allow a nationally or internationally known plastic surgeon to be a guest professor at the I.U. Medical Center to conduct a special program in clinical plastic surgery.

PMA Awards go to Three Clinical Pharmacologists

The Pharmaceutical Manufacturers Association Foundation' "Faculty Development Awards for Clinical Pharmacology" wil aid Dr. William Y. W. Au at the Rochester (New York) Gener Hospital, Dr. Arthur H. Hayes of Cornell University Medical Col lege and Dr. Donald S. Robinson at the University of Vermont

The foundation grants will enable these faculty members t continue research and training in clinical pharmacology. Th advisory committee which makes recommendations for appoint ments in this program consists of nine distinguished individuals i the fields of medicine and pharmacology. Dr. Glenn W. Irwin, Jr is a member of the committee. The three awardees named abov bring to six the number of faculty members now assisted.

Dr. Carlson Elected

Dr. Milton R. Carlson, Portage, has been elected to mem bership in the American Academy of General Practice.

Medical Foundation of Cincinnati To Publish Courses, Meetings Manual

The Medical Foundation of Cincinnati is planning to publish periodic manual which will list current and future postgraduat medical courses, meetings and continuing educational opportu nities in the three-state area of Indiana, Kentucky and Ohio.

The title will be: WHAT GOES ON— K. I. O. Submission c notices of such meetings is invited. Write Dr. G. S. Accetta, 32 Broadway, Cincinnati 45202.

Dr. Moore is Speaker

Dr. Donald F. Moore, medical director of Larue D. Carte Memorial Hospital, Indianapolis, spoke on "The Increasing Im pact of the Minister's Role in Community Health" and "Ever Physician's Continued and Expanding Responsibilities for Menta Health Programs" at a recent meeting of the clergy-physicia conference at Deaconess Hospital, Evansville.

PMA Aids Drug Studies

The Pharmaceutical Manufacturers Association Foundation i aiding the study of side effects of drugs by awards to the Un versity of Southern California School of Medicine and the Lemue Shattuck Hospital, and also by financial support of three medica meetings devoted to clinical investigation and basic research o the subject.

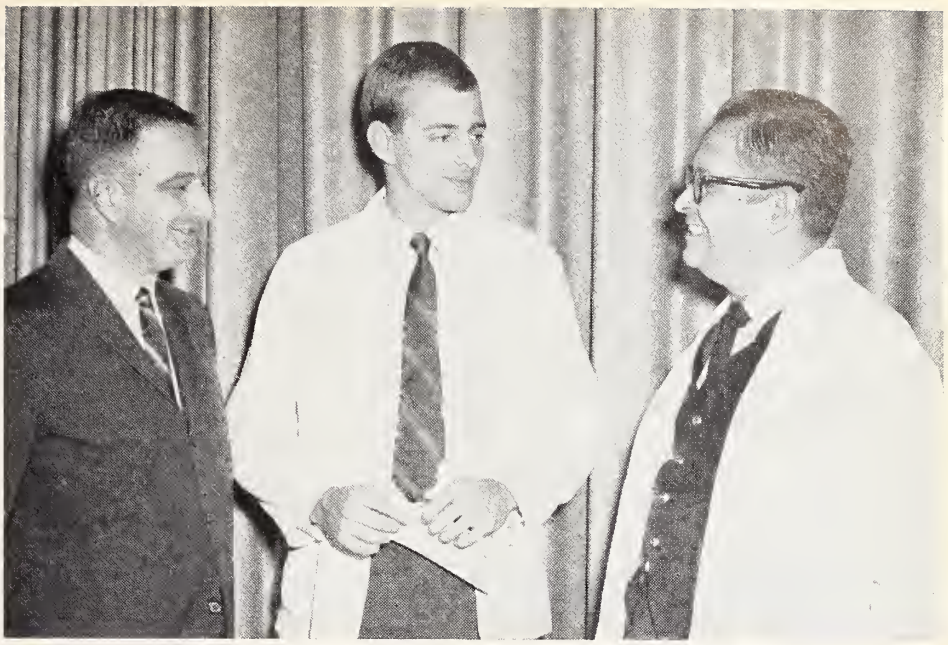
Physicians Honored

Drs. Desmond F. McGuire and Eli L. Levin, East Chicago two members of the original professional staff at St. Catherin Hospital, were honored recently for their 50 years of service t the Indiana Harbor area and the hospital. Drs. McGuire and Levi each received a plaque and hand-lettered certificate as a tribut to their half-century of service.

Plans for 1968 ISMA Annual Convention in Fort Wayne Under Way

Planning for the ISMA Annual Convention at Fort Wayn next October 14 to 17 is well under way. Dr. Charles H. Au has been elected chairman of the Commission on Conventio Arrangements. The main theme of the scientific program will b trauma and cardiopulmonary emergencies. The entertainme program is being arranged.

The main scientific programs will be on Wednesday and Thur day, with a possible medical motion picture program on Tuesda The House of Delegates will meet first on Tuesday afternoo



WINS PITMAN-MOORE AWARD—John F. Hemmer, center, is being congratulated by Dr. James E. Ashmore, head of the department of pharmacology at the Indiana University School of Medicine, on receipt of the Pitman-Moore Award for outstanding work in pharmacology. The award was presented by Dr. Alfred A. Renzi, left, head of pharmacology for the Pitman-Moore Division of the Dow Chemical Company. Mr. Hemmer was elected by the department of pharmacology faculty for work done as a sophomore last year.

nd finally on Friday morning. Reference committees will meet n Tuesday evening and Wednesday. Advance publicity for all unctions is now being planned.

Dr. Montgomery Named

Dr. Lall G. Montgomery, Muncie, has been elected to life membership in the Pan American Medical Association, a group which promotes the interchange of medical knowledge and research among countries of the western hemisphere.

Dr. Montgomery, senior pathologist at Ball Memorial Hospital, president of the American Society of Clinical Pathologists and as for 24 years chairman of the ASCP Board of Registry of Medical Technologists in Muncie.

Dr. Stavely Named

Dr. Homer E. Stavely, at one time director of pharmaceutical research and development of Commercial Solvents Corporation of Terre Haute, and since 1956, director of biochemical research at Mead Johnson, Evansville, has been named acting director of the Institute of Medical Research at the Toledo Hospital. He is also research coordinator and research professor of biochemistry for the Medical College of Ohio at Toledo.

Dr. Salon Reappointed

Dr. Nathan L. Salon, Fort Wayne general practitioner, has been reappointed chairman of the Indiana Commission on Aging and Aged. He has been a member of the commission for the past 12 years.

Rose Polytechnic Institute's New Biological Engineering Course

Rose Polytechnic Institute's new Biological Engineering Department will offer an additional course the second quarter of this academic year to establish communication between its students and workers in the biological and medical professions.

Known as "Problems in Medicine," the course will be presented by local physicians, hospital administrators, drug manufacturers and others in areas related to biological engineering.

Following the presentation of practical problems by the professionals, the staff and students will conduct "brainstorming" sessions at separate meetings to clarify problems and suggest possible avenues of attack.

The Rose Biological Engineering Department, established this year, is believed to be one of the first separate departments of its kind in the nation. Headed by Dr. Robert Arthur, the department will grant both B.S. and M.S. degrees in Biological Engineering.

Dr. Dudgeon Elected

Dr. Charles Dudgeon, Hartford City, has been elected chief of the medical staff of the Blackford County Hospital.

PMA Now Selecting Fellows For Graduate Study Awards

The Pharmaceutical Manufacturers Association Foundation is now selecting Fellows for the academic year beginning July 1, for their graduate study awards in pharmacologic-pathology. The field of cellular structure-function relations will be studied to elucidate drug evoked changes in structure and the accompanying functional significance.

The awards will be for a two-year period, with the possibility of one-year extension when indicated. The program plans to seek trainees who are experienced in pathology, cytology, histology and/or ultra-structure and present them with added training in pharmacology. Pharmacologists may also be chosen to extend their knowledge into the pathologic subjects. Candidates are sought with the understanding that their interests will allow them to remain in the combined field, since recent advances in the field have created a shortage of trained personnel.

Physician Speakers

Dr H. P. Graessle, Seymour, gave the principal address at Recognition Day ceremonies recently which honored Jackson County Schneck Memorial Hospital employees who have given five or more years of continuous service to the hospital and community. **Dr. Kenneth E. Bobb,** hospital chief of staff, also spoke concerning the appreciation of the medical staff for the employees' work and outlined plans for inter-hospital relationship coordination.

AMA Volunteer Physicians to Viet Nam Need Ophthalmologists

The "AMA Volunteer Physicians to Viet Nam" program has developed a specialty section. Fourteen months ago, Dr. W. Conrad Stone of Roanoke, Virginia, had a special request for a

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Upon request, a supply of Trocinate 400 mg. with literature will be sent to physicians for their personal use.

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major eye treatment center to be organized in the Delta south of Saigon.

Dr. Stone is now back in Viet Nam for his second two-month tour. He and Dr. Charles H. Moseley of the AMA are encouraging ophthalmologists to sign up for the special project. Twelve ophthalmologists will be needed during the next twelve months to maintain two on duty full-time. Those interested should write Dr. Moseley at 535 N. Dearborn, Chicago 60610.

New Staff Officers

Dr. M. A. Davidoff, Fort Wayne, has been elected president of the medical staff of Lutheran Hospital there. Others officers are: **Drs. Maurice Glock, president-elect; Kenneth Klooze, secretary and Paul Gentile, treasurer.**

Carle Foundation Dedicates New Addition to Foundation

The Carle Foundation of Urbana, Illinois, recently dedicated a new addition to the foundation. The new structure is known as the Rogers Building, named for Dr. J. C. T. Rogers, who with Dr. Hugh L. Davison, founded the organization, known at that time as the Rogers-Davison Clinic, and later as the Carle Clinic.

The new building will provide additional administrative offices, an emergency department, an entirely new operating suite and 54 more beds.

Dr. Apple Gives Talk

Dr. Eddie R. Apple, Salem, spoke on "The Rising Costs of Medical Care and How to Combat Them" at a recent meeting of the Fortnightly Club.

Pfizer Adds Two New Medical Films to its Library

Pfizer has added two new medical films to its library. One is "The Critical Balance", a diabetes teaching film, 32 minutes, sound and color, produced in the Joslin Clinic. The other is "The Disease Called Alcoholism", based on the work of Knott and Beard at the University of Tennessee, 24 minutes, sound and color. The films are available on a free loan basis to the medical profession. Write Pfizer Medical Teaching Film Library, 267 W. 25th St., New York City 10017.

Dr. Baker Elected

Dr. Eldon E. Baker, Delphi, has been elected to active membership in the American Academy of General Practice.

Dr. Halleck is Speaker

Dr. Harold J. Halleck, Winamac, recently spoke to members of the Kiwanis club on "Local Medical Facilities."

Local Nurse Joins Staff of U. S. Public Health Service

Mary Scott Whitehurst, R.N., formerly Assistant Director for Nursing Service at the Robert Long Hospital, has joined the staff of the U. S. Public Health Service and will be assigned to the Community Nursing Branch. She was Project Director from 1964 to 1967 for the study of nursing needs and resources in Indiana.

Mrs. Whitehurst is from Anderson and has done staff nursing at St. John's Hickey Memorial Hospital and has worked with the Health and Hospital Corporation in Indianapolis.

Dr. Brown Elected

Dr. Thomas M. Brown, Muncie, has been elected president of the East Central Indiana Heart Association.

MEMBERS of the Interagency Council on Smoking met recently to discuss the problem of smoking and some of the educational activities which should be carried on to alert youngsters and others to the effects of tobacco. Seated (left to right) around the table are: Marvin N. Golper, M.D., President, Indiana Division, Inc., American Cancer Society; Lucy Perry, R.N., Indiana League for Nursing; Raymond Clift, Indiana Public Schools; Herbert Erdmann, Indiana Association of Public School Superintendents, Evansville; Robert Mardis, Indiana Association of Elementary Principals, Terre Haute; Thomas Middleton, M.D., Indiana State Medical Association, Bloomington; Kenneth W. Bush, Indiana State Medical Association, Indianapolis; Carl Erskine, Anderson; Allan C. Erickson, American Cancer Society, Indiana Division, Inc., Council Chairman; David E. Livengood, Indiana Heart Association; James R. Mosby, Indiana Association of Classroom Teachers, Indianapolis; Gloria Beckner, American Cancer Society, Indiana Division, Inc.; Mrs. Rowena S. Graub, Indiana State Nurses Association, Indianapolis; Joseph E. Jordan, Indiana Pharmaceutical Association, Indianapolis; Mrs. Margaret Hawley, Indiana Public Health Association, Indianapolis; J. Keogh Rash, American Cancer Society, Indiana Division, Inc.; Hazel M. Steed, R.N., Indiana Tuberculosis Association, Indianapolis. Seated in rear, (left to right); Edgar K. DeJean, Indiana State Dental Association, Salem; Malcolm McLelland, Indiana Congress of Parents and Teachers, Indianapolis; Hugh A. Vickers, Indiana Association of Health, Physical Education and Recreation, Marion; and David L. Bridgford, Indiana Jaycees, Richmond. The Council is planning a Conference on Smoking and Health, March 30, 1968. The plan is to invite a thousand grade and high school students to participate from throughout Indiana. Chairman of the program is Thomas Middleton, M.D., Bloomington, who is also chairman of the Commission on Public Health of the Indiana State Medical Association.

"Leaders in Dermatology" Published by Syntex Laboratories

The third volume in the series "Leaders in Dermatology," has been published by Syntex Laboratories, Inc. It describes the life and works of George Henry Fox, M.D. (1846-1937), the first physician to use photographs to illustrate diseases of the skin.

The biography is highlighted by color photographs and excerpts from the original 1879 edition of Fox's *Photographic Illustrations of Skin Diseases.*

Complimentary copies of the Fox biography will be distributed by Syntex to dermatologists. The first copy was presented to Dr. Clarence S. Livingood, president of the American Academy of Dermatology, during the Academy's 26th annual meeting in Chicago. In 1876, Dr. Fox was one of the founders of the American Dermatological Association, a forerunner of the academy. His son, Dr. Howard Fox, was a founder and the first president of the Academy itself in 1938.

Dr. Bowen Gives Talk

Dr. Otis R. Bowen, Bremen, spoke on the "Problems and Prospects of the State Legislature" at a recent meeting of the Syracuse Rotary club.

Dr. Adney is Speaker

Dr. Frank B. Adney, Jr., Richmond, recently spoke on "Urology" before members of the Reid Memorial Hospital Alumnae and Registered Nurses Club.

Dr. Craft Elected

Dr. Kenneth L. Craft, Indianapolis, gave a talk on "Allergic Hearing Disorders" at the recent meeting of the American Association for Clinical Immunology and Allergy at Las Vegas, Nevada. At the business session, Dr. Craft was elected president of the East Central Regional District comprising the states of Indiana, Illinois, Michigan and Ohio.

Dr. King Named

Dr. Robert W. King, Cedar Lake, has been named to a four-year term on the board of governors of James O. Parramore Hospital, the county's tuberculosis sanitarium.

Dr. Hill Appointed

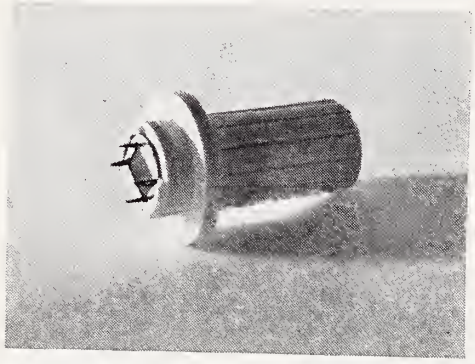
Dr. Lloyd L. Hill, Peru, has been appointed chairman of the newly-created Chamber of Commerce professional committee. Aim of the committee is to encourage doctors, lawyers and other professional men to establish their practice or business in Peru.

Dr. Green Named

Dr. Morris Green, Indianapolis, director of outpatient

To fight TB-find it first!

Make tuberculin testing routine with every physical examination.



TUBERCULIN, TINE TEST
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Side effects are possible but rare: vesiculation, ulceration, or necrosis at test site. Contraindications: none, but use with caution in active tuberculosis. Available in 5's and 25's.

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clinics at the James Whitcomb Riley Memorial Hospital for Children since 1957 and professor of pediatrics in the Indiana University School of Medicine, has been named chairman of the Department of Pediatrics for the school.

Dr. Pletcher is Speaker

Dr. William D. Pletcher, Elkhart, recently addressed the Goshen College senior nurses at their class program.

Dr. Gatzimos Speaks

Dr. Christos D. Gatzimos, Wabash, spoke on a new phase of diagnostic equipment at a recent meeting of Kiwanis Club there. The machine, at Wabash County Hospital, uses isotopes in diagnostic medicine.

Dr. Miller is Speaker

Dr. John D. Miller, Indianapolis, recently spoke to the Grant County Tuberculosis Association. His subject was "Three Big Steps." He stated Indiana is ahead of many other states in the eradication of tuberculosis.

Dr. Musselman Speaks

Dr. Lawrence K. Musselman, Marion, recently spoke to the members of the Fairmount Lions Club. Dr. Musselman outlined the functions of a psychiatrist, stressed the need for a 20-bed hospital in the area and commented on the high cost of therapy for the mentally ill. ◄

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Administrator

12th Annual Postgraduate Course on Fractures and Other Trauma

From April 17th to April 20th, the Chicago Committee on Trauma will present its Twelfth Postgraduate Course on Fractures and Other Trauma. It will attempt to cover many aspects of injuries. This includes abdominal, thoracic, genito-urinary, ophthalmologic, neurosurgical and vascular trauma, as well as musculoskeletal trauma.

Guest speakers will include Dr. Patrick J. Kelly, Mayo Clinic, Rochester, Minn.; Dr. J. William Fielding, New York City; Dr. Adrian E. Flatt, Iowa City, Iowa; Dr. Francis C. Jackson, Pittsburgh, Pa.; and Dr. Paul M. James, Philadelphia.

On the evening of April 18, 1968, the Chicago Committee on Trauma will collaborate with the Chicago Metropolitan Chapter of the American College of Surgeons in presenting a program dealing with tornado injuries. This program will be moderated by Dr. Jackson.

Other panel discussions will be presented and will deal with athletic injuries and with thermal injuries. The latter subject will be presented by Dr. John Boswick, with panelists Allen R. Dimick, M.D., Birmingham, Ala.; Nelson H. Stone, M.D., Chicago, Ill.; and Charles Baxter, M.D., of Dallas, Texas.

In addition to the above mentioned out-of-town guest speakers, numerous doctors from Chicago will participate, including representatives from all five medical schools.

The four-day course will be given at the John B. Murphy Memorial Auditorium, 50 East Erie Street, Chicago 60611. The course is open to all doctors. Registration fee, which is $80.00, includes the chairman's reception one evening and luncheon at the Kungsholm Restaurant on one of the meeting days. Residents and interns will be admitted free upon presentation of a letter from their chief of service. The American Academy of General Practice gives credits to members who take the course. Registration can be accomplished by writing to James P. Ahstrom, Jr., M.D., Chairman, Twelfth Postgraduate Course, American College of Surgeons, 55 E. Erie St., Chicago, Illinois 60611. Reservations at one of the many nearby hotels should be made individually and separately.

"The Problems of the Aging Individual" Subject for Talk

The fifth annual Alven M. Weil Lectureship on "The Problems of the Aging Individual" will be held in Akron, Ohio, Wednesday, March 6, at the Akron City Club.

Dr. Robert B. Greenblatt, Dr. Jessie Marmorston and Dr. Walter C. Alvarez will speak. Reservations for the program and for dinner may be obtained by writing the Akron Obstetrical and Gynecological Society, 430 Grant St., Akron 44311.

Postgraduate Course on "Clinical Dermatology" to be in Colorado in April

The University of Colorado announces a three-day postgraduate course in "Clinical Dermatology" to be held April 25-27 in Denver.

For further information and a detailed program, write to: The Office of Postgraduate Medical Education, University of Colorado School of Medicine, 4200 E. Ninth Ave., Denver, Colorado 80220.

20th Annual Joseph and Samuel Freedman Lectures in Radiology

Dr. Heinz S. Weens, Chairman, Department of Radiology, Emory University, Atlanta, Georgia, will deliver the 20th annual Joseph and Samuel Freedman Lectures in Diagnostic Radiology at the University of Cincinnati College of Medicine on Saturday and Sunday, April 6 and 7, 1968.

Radiologists desiring to attend are requested to write for further details to Dr. Benjamin Felson, Department of Radiology, Cincinnati General Hospital, Cincinnati, Ohio 45229.

National Conference on Rural Health Will be March 29-30

The National Conference on Rural Health will be held at the Olympic Hotel in Seattle on March 29 and 30. A full one and one-half day program of speakers and six discussion groups are planned with a banquet on the first night.

Write AMA Council on Rural Health, 535 N. Dearborn, Chicago 60610 for reservation and registration details and the complete program.

"Controversies in Urology" Course Listed for March 6-7

A course on "Controversies in Urology" will be conducted at the Cleveland Clinic Educational Foundation on March 6 and 7.

Further information and programs may be obtained by writing Director of Education, The Cleveland Clinic Educational Foundation, 2020 East 93rd St., Cleveland 44106.

"Management of Inoperable Cancer" Topic of March 13 Course in Chicago

The third annual "Frontiers of Medicine" series will present a course on "Management of Inoperable Cancer" March 13 at the University of Chicago Hospitals and Clinics.

Further details on the programs and information on registration may be obtained by writing David M. G. Huntington, Administrative Coordinator, Committee on Continuing Medical Education, the University of Chicago, 950 E. 59th St., Chicago 60637. ◄

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Nothing else I've tried seems to work, so I decided to give you a crack at it.

Some U.R.I. patients are more miserable than others.

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And let you control the dosage.

With Novahistine LP tablets and Novahistine Singlet tablets you have the range and flexibility of decongestant dosage that lets you prescribe for the needs of the individual patient.

Novahistine LP tablets are most useful for relief of nasal congestion in patients without pain or fever.

Novahistine Singlet tablets, which provide analgesic-antipyretic effect, as well as decongestant action, are indicated for upper respiratory infections accompanied by pain, aches and fever.

Whether you prescribe Novahistine LP or Novahistine Singlet, a total daily dose of 3 or 4 tablets will usually provide effective, continuous relief.

Use cautiously in patients with severe hypertension, diabetes mellitus, hyperthyroidism or urinary retention. Caution ambulatory patients that drowsiness may result.

Each Novahistine LP tablet contains phenylephrine hydrochloride, 25 mg.; and chlorpheniramine maleate, 4 mg.

Each Novahistine Singlet tablet contains phenylephrine hydrochloride, 40 mg.; chlorpheniramine maleate, 8 mg.; and acetaminophen, 500 mg.

DOW PITMAN-MOORE DIVISION OF THE DOW CHEMICAL COMPANY, INDIANAPOLIS

Deaths

Reuben A. Craig, M.D.

Dr. Reuben A. Craig, 75, Kokomo's first pediatrician and one of the first in Indiana, died December 19.

Graduated from the University of Louisville School of Medicine in 1923, Dr. Craig was an artillery officer in World War I and in World War II, he held a commission in the medical corps of the Indiana National Guard. He served several times as president of the Howard County Medical Society, was the first president of the Howard Community Hospital staff and a past president of the medical staff at St. Joseph Memorial Hospital. He was a Senior Member of ISMA.

Karl L. Dickens, M.D.

Dr. Karl L. Dickens, former chief of staff with the division of medicine for the Veterans Administration regional office, Indianapolis, died November 8 at the age of 65.

Dr. Dickens was a Purdue faculty member for five years before attending Louisiana State University where he received his medical degree in 1937. He was a member of the Morgan County Medical Society.

Foster J. Hudson, M.D.

Dr. Foster J. Hudson, 73, retired Indianapolis obstetrician, died December 4.

A Senior Member of ISMA and a member of the Marion County Medical Society, Dr. Hudson was graduated from the I.U. School of Medicine in 1921. During World War I he was a member of the Army Medical Corps. He taught school for a short time before entering medical school and began his medical practice in Indianapolis in 1924.

Herbert L. Magennis, M.D.

Dr. Herbert L. Magennis, 82-year-old retired physician, died Dec. 20 at Indianapolis.

Graduated from the Eclectic Medical College in 1907, Dr. Magennis had been a general practitioner for 59 years. He was a lieutenant in the Army Medical Corps during World War I. He was a Senior Member of ISMA, a member of the 50-Year Club and the Marion County Medical Society.

Herbert N. Smith, M.D.

Dr. Herbert N. Smith, retired Brookville physician, died Dec. 15. He was 75.

A Brookville physician for 47 years, Dr. Smith was graduated from the University of Cincinnati Medical School in 1920. Dr. Smith was very active in civic and community affairs and had served on several ISMA committees and commissions. He was a former president of the Fayette-Franklin County Medical Society and an ISMA delegate.

County, District News

Dearborn-Ohio

Dr. Robert Reid, district councilor, spoke on Public Law 749 at the Dec. 7 meeting of the Dearborn-Ohio County Medical Society.

Decatur

Dr. Alfredo Paje, Greensburg, lead a discussion on "Emergency Care of Chest Injury" at the Dec. 14 meeting of the Decatur County Medical Society.

Dubois

Field Secretary Robert Amick visited the Dec. 14 meeting of the Dubois County Medical Society to discuss various matters of interest to Indiana physicians.

Fort Wayne

"Traffic Safety and Emergency Room Care" was the topic of the 15th annual I.A.G.P. Road Show which was held Dec. 5 for members of the Fort Wayne (Allen County) Medical Society. Speakers included Dr. Howard S. Williams, Indianapolis; Sergeant Thomas R. Jack, of the Indiana State Police and Captain Robert Gebhart, of the Fort Wayne Police Department.

Lake

New officers of the Lake County Medical Society are: Drs. Seymour Shapiro, president; Joseph Kopcha, president-elect and R. R. Barton, secretary-treasurer.

Lawrence

Dr. G. W. Sorrells is the new president and Dr. R. C. Crosby, the new secretary-treasurer of the Lawrence County Medical Society.

Porter

Officers of the Porter County Medical Society are: Drs. John Read, Chesterton, president; Stewart Wu, Valparaiso, vice-president and Milton Carlson, Portage, secretary.

Shelby

Dr. P. M. Inlow is the new president; Dr. Margaret Newhouse, vice-president and Dr. R. P. Inlow, secretary-treasurer of the Shelby County Medical Society.

Tippecanoe

The Tippecanoe County Medical Society met Dec. 12 to hear Field Secretary Howard Grindstaff report on the new method of billing and other matters of interest to ISMA members.

Wayne-Union

Dr. Otis Bowen, Bremen, was the speaker at the Dec. 5 meeting of the Wayne-Union County Medical Society. New officers of the society are: Drs. John Stepleton, president; John Mader, president-elect; John Dehner, secretary and C. S. Clarkson, treasurer.

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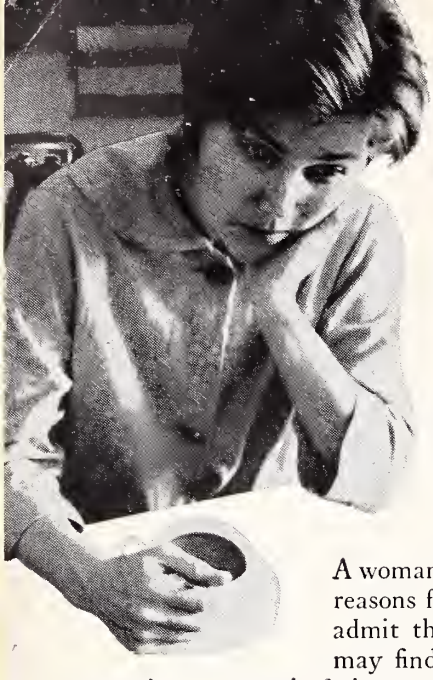

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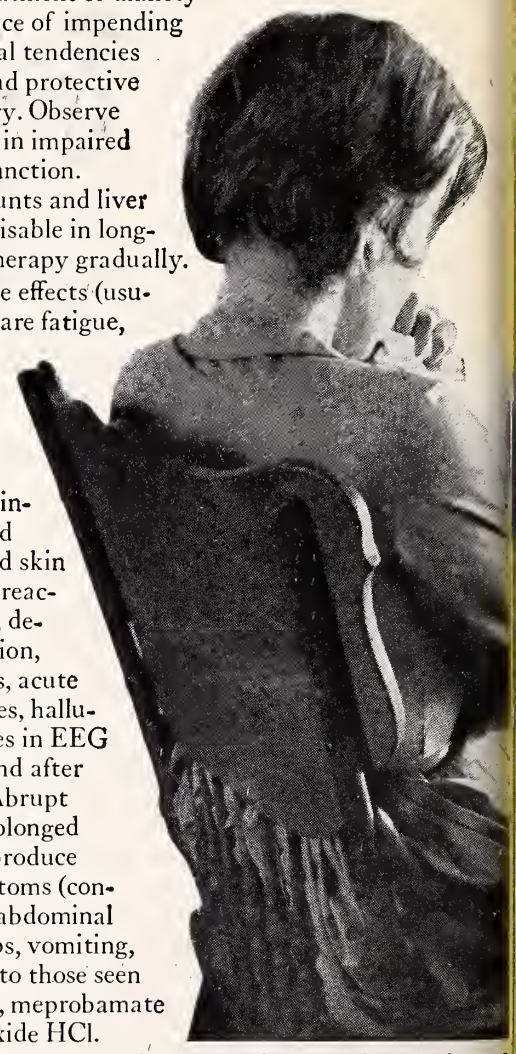

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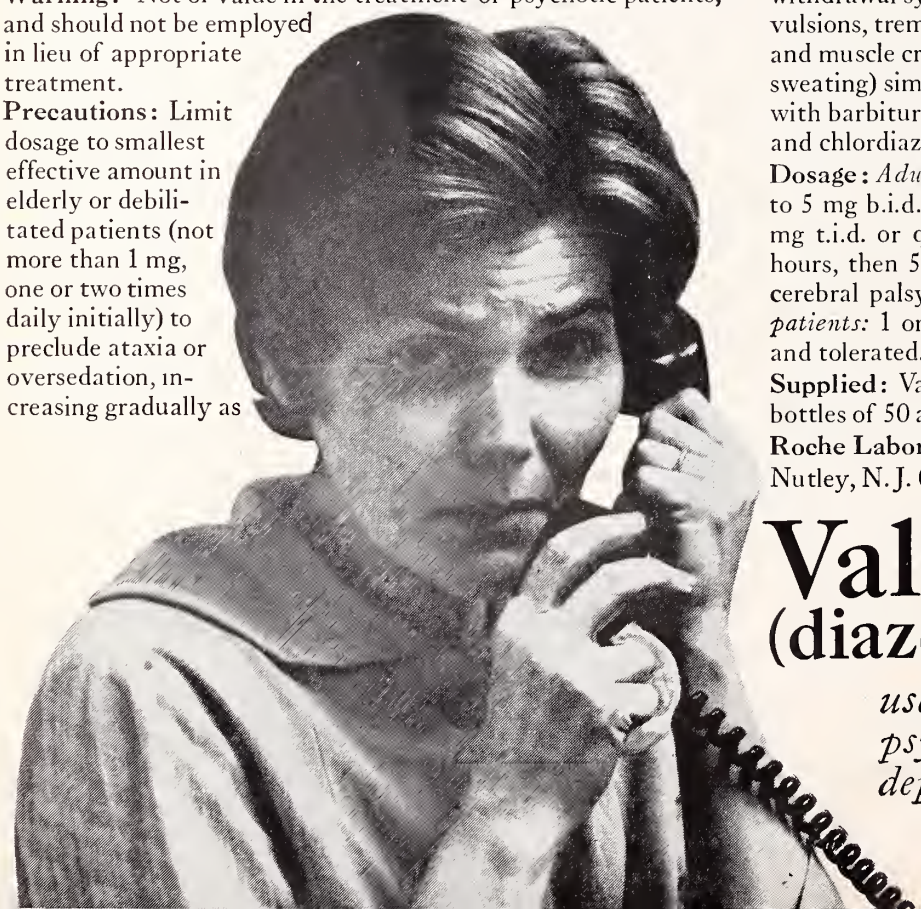

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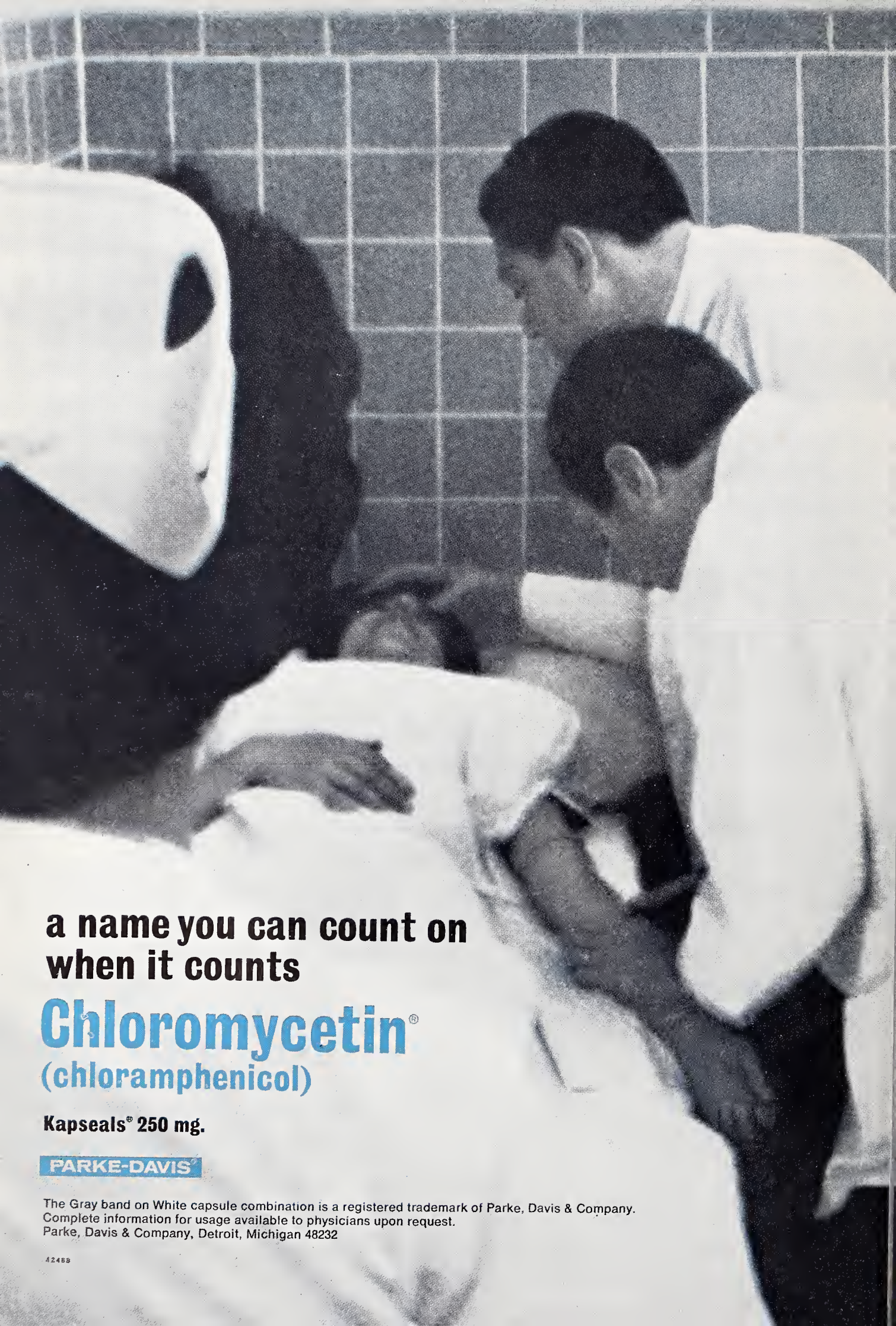
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Frank H. Green, Rushville	Kenneth O. Neumann, Lafayette

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Delegates	Alternates
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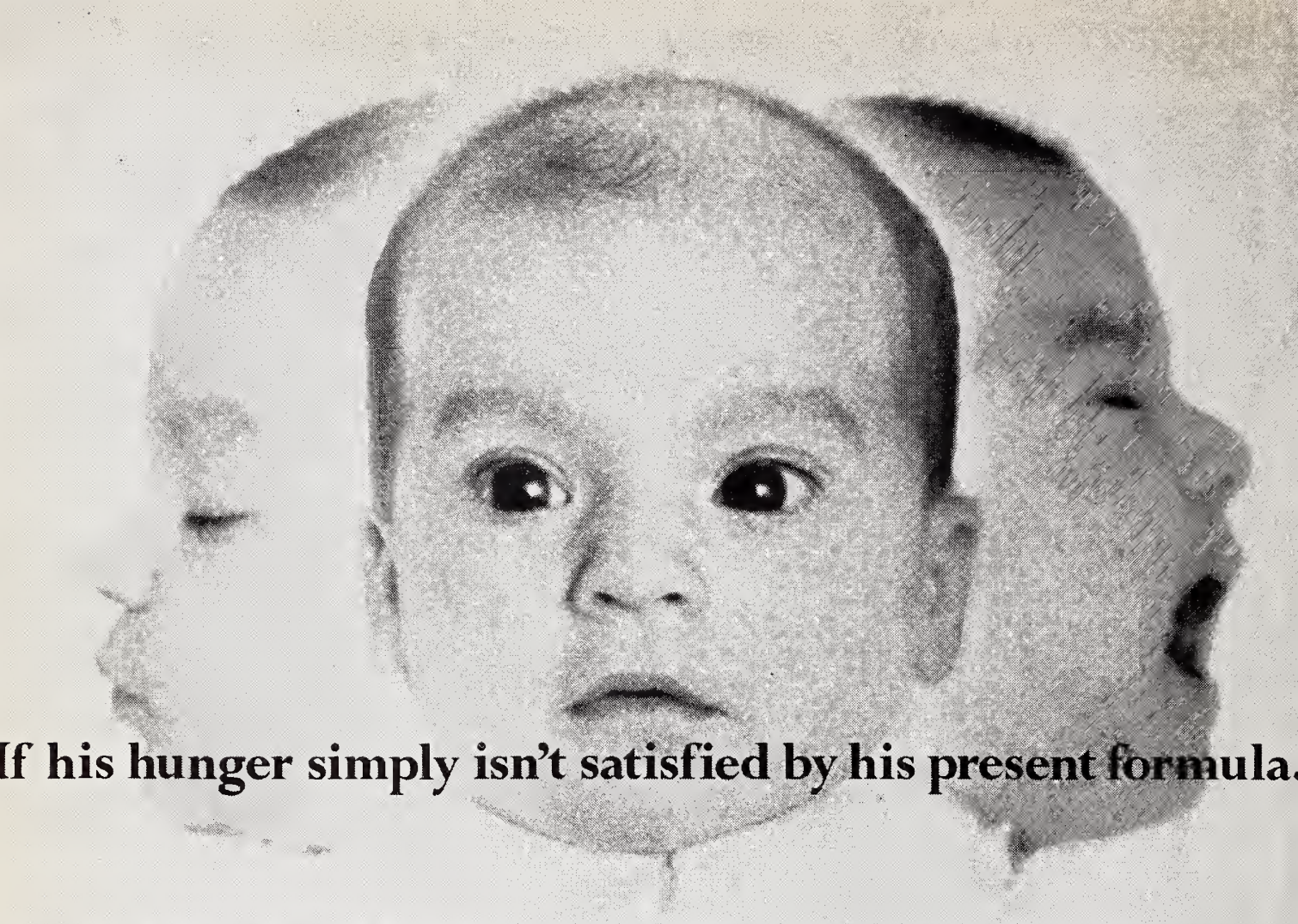
Jack E. Shields, Brawnstown	Dwight W. Schuster, Indianapalis



If his hunger simply isn't satisfied by his present formula.

the problem could be essential fatty acid imbalance

Excessive appetite, inordinate crying, poor weight gain and skin rashes can be caused by an infant formula that does not have fatty acid balance.[1-5] Linoleic acid is a required nutrient which is converted, in part, to metabolically-active arachidonic acid. Preliminary studies have shown that linolenic acid, if present in sufficient quantity, can adversely affect t conversion. Optimil has only tr amounts of linolenic acid.

Fat analyses of Optimil and two leading modified-milk formulas*

Fatty acids	Optimil % of fat	Prod. #2 % of fat	Prod. #3 % of fat
Saturated	**40.4**	**44.2**	**39.0**
Caprylic	3.3	1.6	2.2
Capric	2.2	1.1	1.5
Lauric	16.0	10.1	11.7
Myristic	6.3	5.1	5.5
Palmitic	10.2	16.2	14.0
Stearic	2.3	9.0	4.5
Unsaturated	**59.6**	**55.8**	**61.0**
Oleic	40.7	33.0	24.7
Linoleic	18.9	19.5	34.6
Linolenic	trace	2.3	1.7

* Mean of three lots tested

mil, an optimum-nutrition infant formula, helps reduce problems

ding

ptimil from Carnation
ıs more than enough linoleic
ıd only a trace of linolenic.
ptimil-fed infants maintain
te tissue levels of
lonic acid. This is reflected
high caloric efficiency
mil, and helps to satisfy
and promote efficient
gain and a clear complexion
s an infant contented.[6-8]

ommend Optimil

imum contentment,
m digestibility and optimum
, recommend Optimil, the
m-nutrition infant formula.
in the new full 16-fluid
an for maximum
ience in formula preparation.
le only at drug stores.

in digestibility

Of all the fatty acids commonly found in infant formulas, stearic acid is the least digestible.[9] Optimil contains a comparatively low level of stearic acid and a relatively high level of oleic acid, which has been shown to aid in the absorption of stearic acid. Optimil also has a high ratio of unsaturated fat to saturated fat which further enhances the formula's digestibility.

1. Hansen, A. E., et al: Pediatrics 31:171, 1963. 2. Holman, R. T.: Fed Proc. 23:1062, 1964. 3. Holman, R. T., et al.: Amer. J. Clin. Nutrition 14:70, 1964. 4. Hepner, R., et al.: Pediatrics 33:94, 1964. 5. Pikaar, N.A., and Fernandes, J.: Amer. J. Clin. Nutrition 19:194, 1966. 6. Hepner, R.: Current Therapeut. Research 9:140 (Suppl. 35) 1967. 7. Hart, L. M.: Ibid., p. 179. 8. Nichols, M. M.: Ibid., p. 184. 9. Young, R. J. and Garrett, R. L.: J. Nutrition 81:321, 1963.

in stooling

Stooling problems and perianal dermatitis are minimized by the presence of lactose. A low renal solute load assures ample expendable water reserves to meet stress situations. Adequate amounts of all-known essential vitamins and 8 mg. of iron are included per diluted quart.

Optimil®, an optimum nutrition infant formula, from Carnation®

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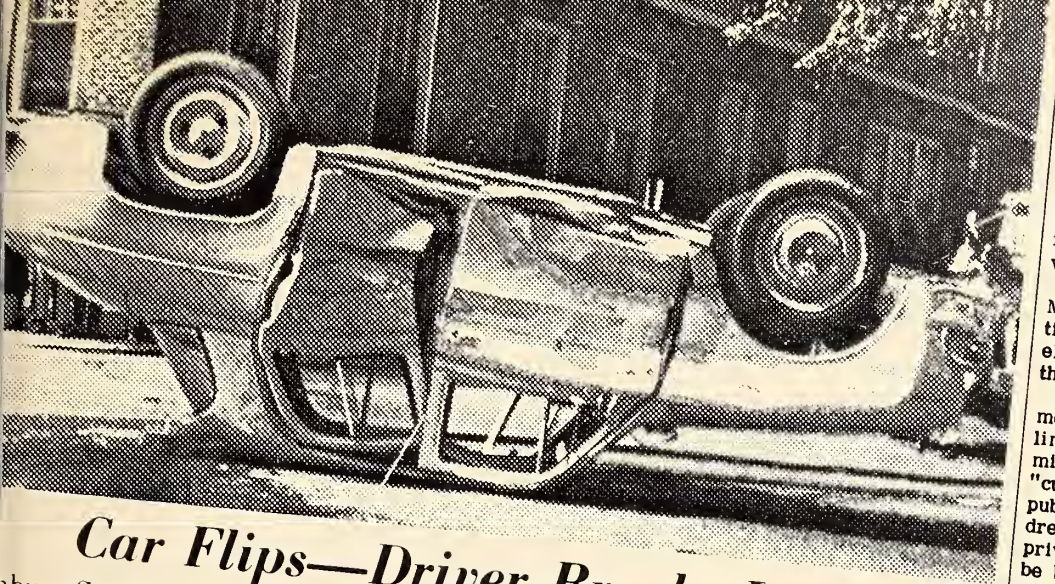


STAFF PHOTO

Car Flips—Driver Breaks Leg

nbus, Sept. 7. John P. Jones of Lar incurred a broken leg today driving

Patrolman B. R. Brown, the car hit a fire hydrant and flipped over on its top

For se board h statemer issue, a tember th fications' ton dicta Althou made Mo down by a ter shar flat obje was pass Board McCredi tion" s elimir the st The c ment ca limit ra mile li "cut-of public dren priv be b or th schoo The so so rather

He's had enough excitement for one day.

For the patient who has been through an accident, the worry and anxiety following the experience may actually heighten the perception of pain. This is why there's a classic ¼ grain *sedative* dose of phenobarbital in Phenaphen with Codeine—*to take the nervous "edge" off,* so the rest of the formula can control the pain more effectively.

Phenaphen® with Codeine

Phenaphen® with Codeine No. 2, No. 3, or No. 4 contains: *Phenobarbital* (¼ gr.), 16.2 mg. (Warning: may be habit forming); Aspirin (2½ gr.), 162.0 mg.; Phenacetin (3 gr.), 194.0 mg.; Hyoscyamine sulfate, 0.031 mg.; Codeine Phosphate, ¼ gr. (No. 2), ½ gr. (No. 3), or 1 gr. (No. 4). (Warning: may be habit forming).

THE COMPOUND ANALGESIC THAT CALMS INSTEAD OF CAFFEINATES

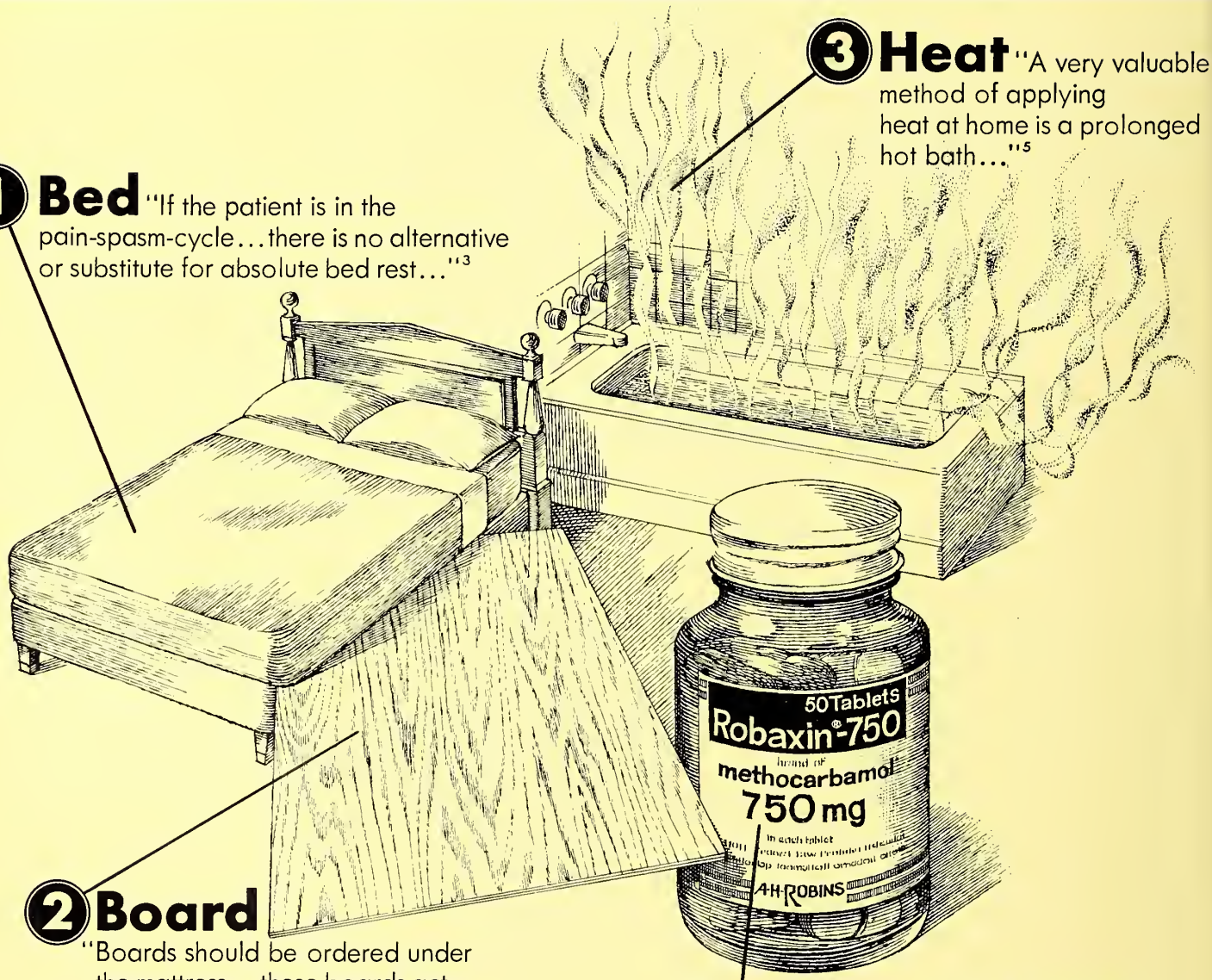
Indications: Phenaphen with Codeine provides relief in severer grades of pain, on low codeine dosage, with minimal possibility of side effects. Its use frequently makes unnecessary the use of addicting narcotics. **Contraindications:** Hypersensitivity to any of the components. **Precautions:** As with all phenacetin-containing products excessive or prolonged use should be avoided. **Side effects:** Side effects are uncommon, although nausea, constipation and drowsiness may occur. **Dosage:** 1 or 2 capsules at 2 to 4 hour intervals, or as directed by physician. For further details see product literature.

A. H. ROBINS COMPANY
RICHMOND, VA. 23220 A·H·ROBINS

LOW-BACK PAIN

A CONSERVATIVE, FOUR-POINT PROGRAM

The low back pain that is most frequently seen in general practice is mechanical in nature, i.e., postural back pain, joint dysfunction and acute back strain.[1,2] For this type of discomfort, a conservative regimen is usually sufficient to relieve aches and pains, and to help keep the patient functioning. Components of this basic program include:



3 Heat "A very valuable method of applying heat at home is a prolonged hot bath..."[5]

1 Bed "If the patient is in the pain-spasm-cycle...there is no alternative or substitute for absolute bed rest..."[3]

2 Board "Boards should be ordered under the mattress...these boards act by immobilizing the spine..."[4]

4 Robaxin®-750 (methocarbamol, 750 mg. capsule-shaped tablets) A well-tolerated[6] skeletal muscle relaxant, methocarbamol helps relieve spasm "...without interfering with normal tone and movement."[7] And there is little likelihood of sedation.[6]

Indicated for relief of skeletal muscle spasm. **Contraindicated** in hypersensitive patients. **Side Effects** (lightheadedness, dizziness, drowsiness, nausea) may occur rarely, but usually disappear on reduced dosage. Hypersensitivity reactions develop infrequently. See product literature for further details. **Also available:** Robaxin® Tablets (methocarbamol, 500 mg.) Robaxin Injectable (methocarbamol, 1 Gm./10 cc.)

References: (1). Godfrey, C.M.: Applied Therap. *8*:950, 1966. (2). Gottschalk, L.A.: GP *33*:91, 1966. (3). Rowe, M.L.: J. Occup. Med. 2:219, 1960. (4). Cozen, L.: South Dakota J. Med. *18*:26, 1965. (5). Soto-Hall, R.: Med. Sc. *14*:23, 1963. (6). Weiss, M. and Weiss, S.: J. Am. Osteopath. A. 62:142, 1962. (7). Feuer, S.G., *et al.*: New York J. Med. 62:1985, 1962.

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2.		J. S. Brown, Carlisle	June 6, 1968, Bloomington
3.	Daniel H. Cannon, New Albany	Elmer L. Wallace, New Albany	May 15, 1968, New Albany
4.	Frank B. Bard, Crothersville	Harold E. Miller, Seymour	
5.	Thomas J. Conway, Terre Haute	Arnold W. Kunkler, Terre Haute	Terre Haute
6.	Paul Inlow, Shelbyville	Perry Seal, Brookville	Connersville
7.	Jay Reese, Martinsville	James H. Gosman, Indianapolis	Franklin
8.	William Stinson, Anderson	Charles R. King, Anderson	June 5, 1968, Anderson
9.	Nolan Hibner, Monticello	Max Fields, Monticello	May 16, 1968, Monticello
10.	John J. Reed, Hobart	Raymond Doherty, Crown Point	April 10, 1968, Whiting
11.	Charles Wise, Camden	Fred Poehler, La Fontaine	September 18, 1968, Delphi
12.	Max M. Gitlin, Bluffton	Berniece Williams, Fort Wayne	May 15, 1968, Angola
13.	E. C. Mueller, LaPorte	John Hildebrand, South Bend	September 18, 1968

"Upper respiratory infection! I thought everything was a 'virus' these days?"

Some U.R.I. patients are more miserable than others.

That's why we make Novahistine® in two different tablet formulations.

And let you control the dosage.

With Novahistine LP tablets and Novahistine Singlet™ tablets you have the range and flexibility of decongestant dosage that lets you prescribe for the needs of the individual patient.

Novahistine LP tablets are most useful for relief of nasal congestion in patients without pain or fever.

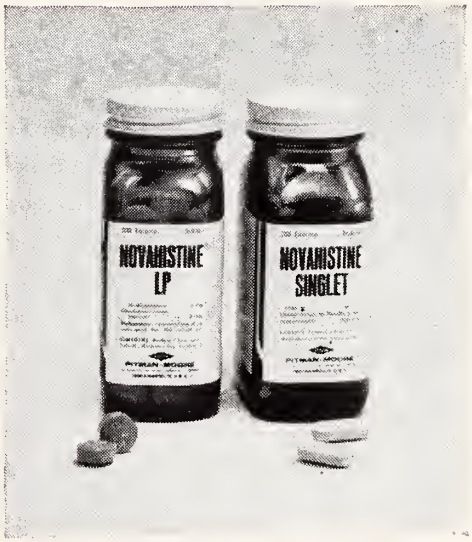
Novahistine Singlet tablets, which provide analgesic-antipyretic effect, as well as decongestant action, are indicated for upper respiratory infections accompanied by pain, aches and fever.

Whether you prescribe Novahistine LP or Novahistine Singlet, a total daily dose of 3 or 4 tablets will usually provide effective, continuous relief.

Use cautiously in patients with severe hypertension, diabetes mellitus, hyperthyroidism or urinary retention. Caution ambulatory patients that drowsiness may result.

Each Novahistine LP tablet contains phenylephrine hydrochloride, 25 mg.; and chlorpheniramine maleate, 4 mg.

Each Novahistine Singlet tablet contains phenylephrine hydrochloride, 40 mg.; chlorpheniramine maleate, 8 mg.; and acetaminophen, 500 mg.



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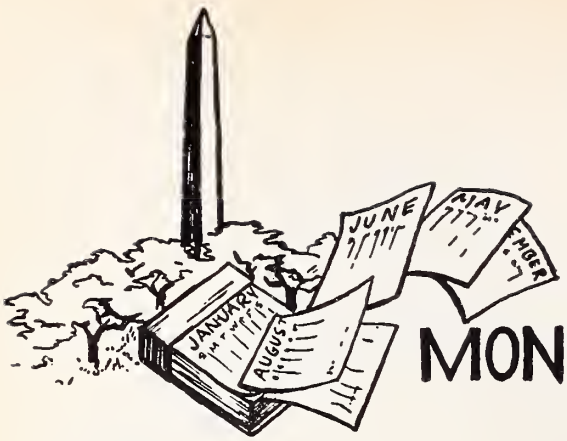


This summary of what is happening in Washington is prepared by AMA's Capitol office and air-mailed to *The Journal* on the ninth of each month preceding month of issue.

MONTH IN WASHINGTON

WASHINGTON, D.C.—Dr. Dwight L. Wilbur, president-elect of the American Medical Association, warned that physicians will resist any effort to establish national medical standards under the Regional Medical Programs.

BUT HE PREDICTED that the medical profession would cooperate enthusiastically if the programs are carried out on a voluntary cooperative basis.

DR. WILBUR spoke at a conference on Regional Medical Programs sponsored by the Department of Health, Education and Welfare.

"IF THE PROGRAM in fact is clearly one designed to catalyze and to facilitate the development of better programs than now exist to serve patients and their physicians, it will undoubtedly receive enthusiastic cooperation from the medical profession and related groups," Dr. Wilbur said. "We know that the law and its legislative history stress the voluntary cooperative nature of the program and that interference with existing patterns is specifically prohibited . . . .

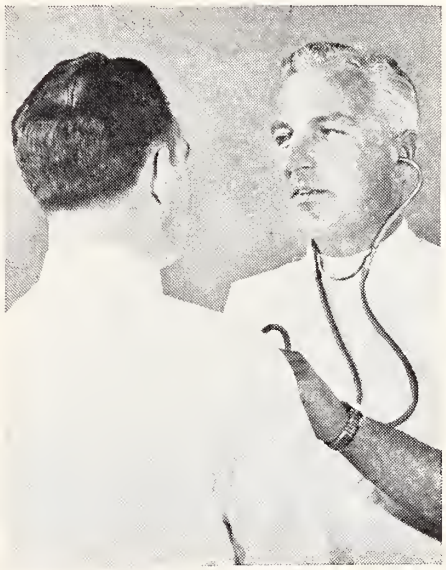
"UNLIKE many other countries, our nation has reached its preeminence in many areas of activity because of this unique combination of multiple independent focal points of activity cooperating on a voluntary basis to achieve a commonly desired goal . . . .

"IF RMP MAINTAINS its current emphasis on the working together of regional groups, it will fulfill its purpose of improving the quality, accessibility and availability of health care, physician and institutional performance, and consumer satisfaction.

"ON THE OTHER HAND, if RMP becomes an instrument for the establishment of national standards with the coercive compliance compelled by such standards, it will arouse nationwide resistance from physicians, institutions and allied health professionals. What can be gained by cooperation and meaningful participation will surely be lost if the use of coercive power, which for the moment lies dormant in Public Law 89-239, becomes its dominant characteristic . . . .

"RMP is in a strategic position to bring about changes acceptable both to physicians and their patients that will improve performance and patient satisfaction without undermining patterns of behavior that are traditional, and, more significant, considered by the medical profession essential to the preservation of high quality care."

Continued



The Doctor-Patient Relationship is an Intimate One . . .

Don't Let A Third Party Destroy It!

Doctor . . . you lose the "doctor-patient" relationship when you "sell" your accounts to a large organization. Keep the patient on your side and his account under your control. Our experienced staff members are acquainted with the professional needs and ethics of the health professions. We have many years' experience in collecting past due accounts while preserving the sensitive doctor-patient relationship.

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Continued

THE OVERWEIGHT TARGET FOR QUACKS

THE AMERICAN Medical Association told Congress that weight reduction is a leading health area for quackery.

THE AMA POSITION on weight reduction, particularly as so-called diet pills are involved, was outlined by Drs. Theodore B. Van Itallie of New York, N.Y., a member of the Council on Foods and Nutrition, and Harry C. Shirkey of Birmingham, Ala., vice chairman of the Council on Drugs, in testimony before the Senate Antitrust and Monopoly Subcommittee.

THE SUBCOMMITTEE was investigating reports that some osteopaths and physicians were making large incomes from assembly-line administration of multi-colored "diet" pills containing such drugs as barbiturates, thyroid extract, amphetamines, thiazine, diuretics, laxatives and various hormones.

OFFICIALS of Illinois and Oregon testified that such pills were involved in at least 20 deaths in their states.

"PERHAPS in no other area of health and medical problems do we encounter as much food faddism and quackery," Dr. Van Itallie testified. "The obese are extremely gullible, forever willing to believe that someday a gadget, a diet, a pill, or a book will lead to the miracle of easy and painless reduction of weight. While most of the quackery originates with health hucksters who have no scientific background, training, or qualifications in the medical or nutritional fields, unfortunately a physician is occasionally involved.

"THE American Medical Association has long utilized its various publications to bring to the profession and the public up-to-date information on the latest scientific advances in the area of obesity control. It frequently focuses attention upon those irregular practitioners and faddists who prey upon the unsuspecting public. As the national voice of medicine, we believe that it is incumbent upon us to help protect the public from those practices which have the potential of adversely affecting the public health . . . .

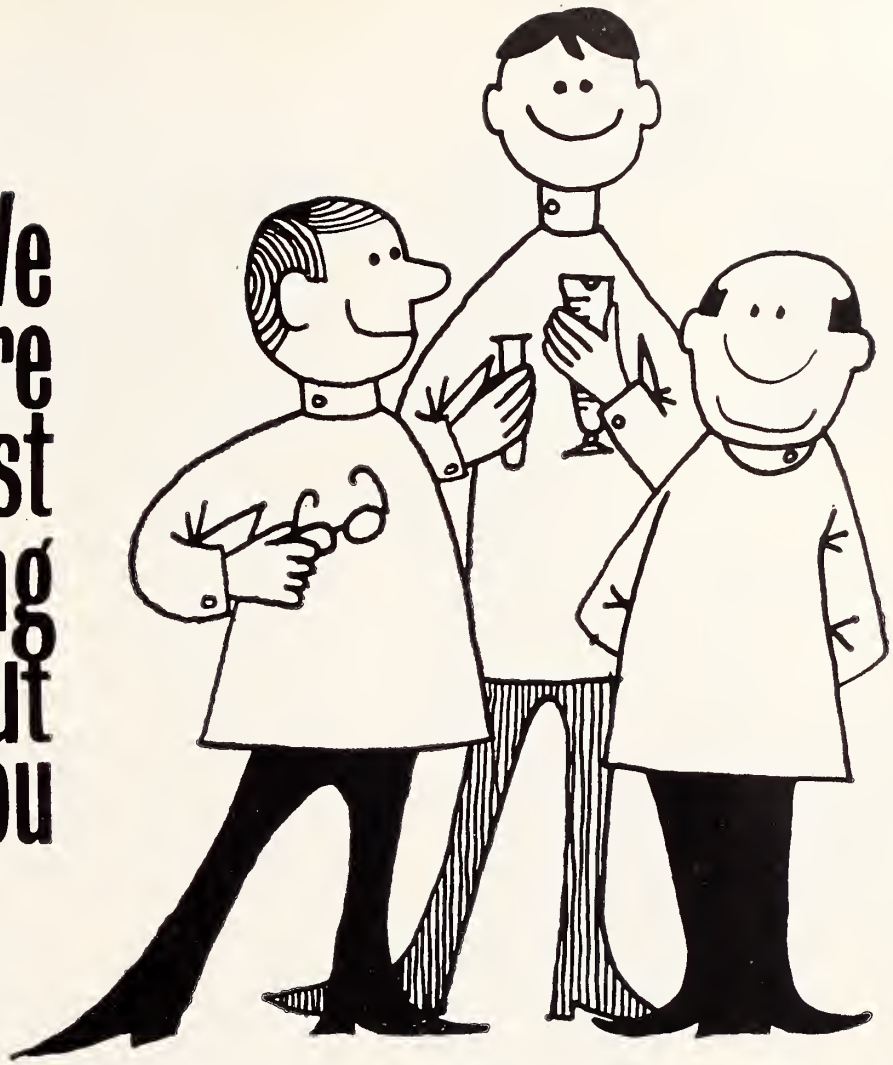
"A PHYSICIAN who assumes the responsibility for treating obesity takes on a difficult role. Few other medical disorders require the same disciplined and prolonged cooperation of the patient in their treatment. Even under the best of circumstances, the results of treatment become apparent slowly. The inherent handicaps may strain the busy physician's patience and tempt him to resort to unsound methods of treatment. He must have a clear understanding of the physiological and psychological problems of obesity in order to treat it wisely."

DR. SHIRKEY broke down weight drugs into seven general classifications: (1) cardiac glycosides; (2) hormones, chiefly thyroid; (3) diuretics; (4) anorexiants (appetite suppressants); (5) laxatives; (6) sedatives; and (7) antispasmodics. Of them he said:

CARDIAC GLYCOSIDES: "Their use for obesity is reprehensible and may well have attributed to the few reported deaths of patients receiving such treatment."

Continued

We were just talking about you



Everything good, understand. We were just saying how nice it is to be asked to advertise in your Journal. Guess that means we have your respect and confidence. That's what makes our jobs so worthwhile. And you know, Hook's has been serving your profession since 1900 (not us personally, now, we're not that old). So keep calling on us—we're all over town and look forward to your continued trust.

The Man in Green

We're located in over 40 communities

Hook's

DEPENDABLE DRUG STORES

HORMONES - THYROID "There are at least three irrationalities . . . in this hormonal approach to the treatment of obesity."

DIURETICS: "There is no rational basis for the use of diuretic drugs in the treatment of simple obesity."

ANOREXIANTS: "Amphetamines are useful as a crutch to help the patient become accustomed to a rigorous reducing diet. But long-term administration is not justified because they tend to become less effective and, in addition, can lead ultimately to habituation."

LAXATIVES: "There is little rational basis for the use of laxatives in the treatment of obesity."

PRESIDENT SEEKS LOWER HEALTH CARE COSTS

PRESIDENT JOHNSON said the administration would take additional steps to abate the increases in health care costs and to increase the numbers of health personnel.

IN HIS economic message to Congress, he said:

"THE SUPPLY of qualified health personnel has lagged behind the expanding demand. I will shortly propose new measures to increase this supply.

"LAST YEAR, medical care prices rose seven percent, more than twice as fast as other prices. I shall propose new measures to slow down the spiraling cost of health care."

IN HIS State of the Union message, the President included in a list of "absolutely intolerable" conditions which he said had existed for many years: "Hospital and medical costs are high, and they are rising." He did not amplify the brief statements in either of these two messages, leaving the details for a later health message to Congress.

CHAIRMAN Abraham A. Ribicoff (D., Conn.) said the Senate Government Operations Committee would conduct a two-year investigation into the rise in hospital and other health care costs. He said the subcommittee's study also would be concerned with the number of physicians and other health personnel.

MR. JOHNSON said he also would propose a child health program and stricter penalties for those who traffic in LSD and other dangerous drugs. The child health program would provide poor families over the next five years with health service from prenatal care of the mother through the child's first year.

THE BUDGET for the Department of Health, Education and Welfare allotted $66 million for medical education in fiscal 1969, for the year beginning next July 1, an increase of more than $16 million. Federal aid for allied health training was increased from $19 million to $27.2 million.

MEDICARE expenditures for fiscal 1969 were estimated at $6.3 billion, compared with $5.7 billion for the current fiscal year.

FAMILY planning programs of the federal government would be greatly expanded. The goal is to provide birth control information to one million women by quadrupling the size of the family planning services budget from $6 million to $24 million.

"The inconvenience of a cold"

or a cold, NTz® Nasal Spray provides rapid relief of asal symptoms. Relief starts with the first spray which pens the inferior part of the common meatus. A second pray, a few minutes later, will shrink the turbinates to elp provide sinus drainage and ventilation. Dosage nay be repeated every three or four hours as needed, or temporary relief of symptoms. NTz is well tolerated ut overdosage should be avoided.

s a sinusitis deterrent, NTz Nasal Spray can be used to eep the nasal passages open during a cold to help pre-ent development of acute sinusitis—or to help prevent he acute condition from becoming chronic.

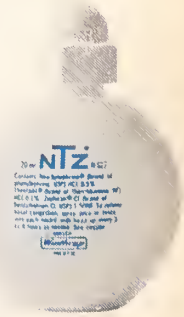
Supplied: NTz Nasal Spray, plastic squeeze bottles of 20 ml.; NTz Nasal Solution, bottles of 30 ml. (1 fl. oz.) vith dropper.

NTz is more than a simple vasoconstrictor. It contains

Neo-Synephrine® (brand of phenylephrine) HCl 0.5 per cent, the major component, virtually synonymous with fast, efficient but gentle nasal vasoconstriction.

Thenfadil® (brand of thenyldiamine) HCl 0.1 per cent, topical antihistamine for reduction of rhinorrhea, sneezing or itching. It combats the allergic reactions that may occur in colds or sinusitis.

Zephiran® (brand of benzalkonium, as chloride, refined) 1:5000, antiseptic preservative and wetting agent to promote penetration and spread of the formula.



Winthrop Laboratories, New York, N.Y. 10016 Winthrop

Valium® (diazepam)

useful adjunct for the coronary patient...

When oppressive feelings and psychic tensions are severe and cooperation with the physician poor, it may be helpful to add adjunctive Valium (diazepam), 10 mg or 5 mg t.i.d., to the coronary patient's regimen. Valium (diazepam) helps to promote the needed relaxation that the patient requires to make him less preoccupied with his condition and more inclined to cooperate in, and benefit from, the total therapeutic program. Valium (diazepam) may be administered in the presence of secondary depressive symptoms.

in the hospital...

(5 mg or 10 mg t.i.d.)

convalescing...

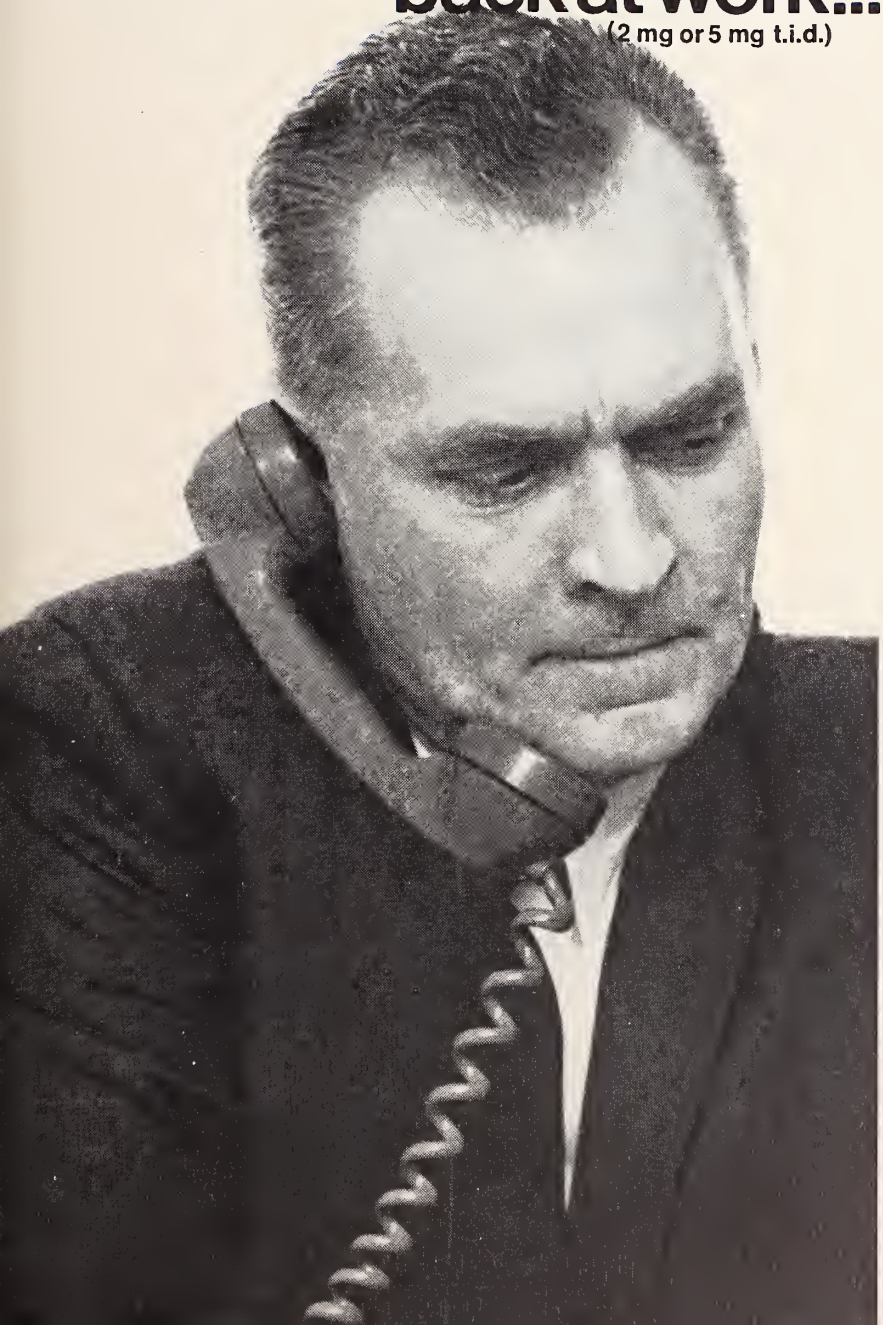
(2 mg or 5 mg t.i.d.)

The heart patient who leaves the hospital to enter a period of slow restorative treatment is often forced to make emotionally difficult adjustments. The resulting stress of this period may again cause psychic tension to mount to potentially harmful levels. To augment your reassurance and the emotional support of his family, a 2 mg or 5 mg t.i.d. regimen of Valium (diazepam) can reduce psychic tension and thereby help the patient to accept necessary restrictions more calmly, and to adjust to his illness more realistically.

Getting back to work presents additional stresses for the cardiac patient. There are often anxiety-producing features in the job which can be more significant than the physical or intellectual demands of the work. Valium (diazepam), 2 mg or 5 mg t.i.d., may be a useful adjunct to reduce overreaction to these stresses and thus help the patient to face job situations more calmly and rationally.

back at work...

(2 mg or 5 mg t.i.d.)



Valium® (diazepam)

to help relieve psychic tension

and for the patient with tension-induced sleeplessness, remember the value of an extra tablet at bedtime

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states, moderate to severe psychoneurotic states with anxiety, apprehension or agitation alone or with depressive symptoms; somatic complaints which are concomitants of emotional factors; acute agitation due to alcohol withdrawal; muscle spasm associated with cerebral palsy and athetosis.

Contraindications: Infants, patients with history of convulsive disorders, glaucoma or known hypersensitivity to drug.

Warning: Not of value in the treatment of psychotic patients, and should not be employed in lieu of appropriate treatment.

Precautions: Limit dosage to smallest effective amount in elderly or debilitated patients (not more than 1 mg, one or two times daily initially) to preclude ataxia or oversedation, increasing gradually as needed or tolerated. As is true of all CNS-acting drugs, until correct maintenance dosage is established, advise patients against possibly hazardous procedures requiring complete mental alertness or physical coordination. Driving during therapy not recommended. In general, concurrent use with other psychotropic agents is not recommended. If such combination therapy is used, carefully consider individual pharmacologic effects—particularly with known compounds which may potentiate action of Valium (diazepam), such as phenothiazines, barbiturates, MAO inhibitors and other antidepressants. Advise patients against simultaneous ingestion of alcohol or other CNS depressants. Safe use in pregnancy not established. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Observe usual precautions in impaired renal or hepatic function. Periodic blood counts and liver function tests advisable in long-term use. Cease therapy gradually.

Side Effects: Side effects (usually dose-related) are fatigue, drowsiness and ataxia. Also reported: mild nausea, dizziness, blurred vision, diplopia, headache, incontinence, slurred speech, tremor and skin rash; paradoxical reactions (excitement, depression, stimulation, sleep disturbances, acute hyperexcited states, hallucinations); changes in EEG patterns during and after drug treatment. Abrupt cessation after prolonged overdosage may produce withdrawal symptoms (convulsions, tremor, abdominal and muscle cramps, vomiting, sweating) similar to those seen with barbiturates, meprobamate and chlordiazepoxide HCl.

Dosage—Adults: Mild to moderate psychoneurotic reactions, 2 to 5 mg b.i.d. or t.i.d.; severe psychoneurotic reactions, 5 to 10 mg t.i.d. or q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; muscle spasm with cerebral palsy or athetosis, 2 to 10 mg t.i.d. or q.i.d.

Geriatric patients: 1 or 2 mg/day initially, increase gradually as needed and tolerated. (See Precautions.)

Supplied: Valium® (diazepam) Tablets, 2 mg, 5 mg and 10 mg; bottles of 50 and 500.

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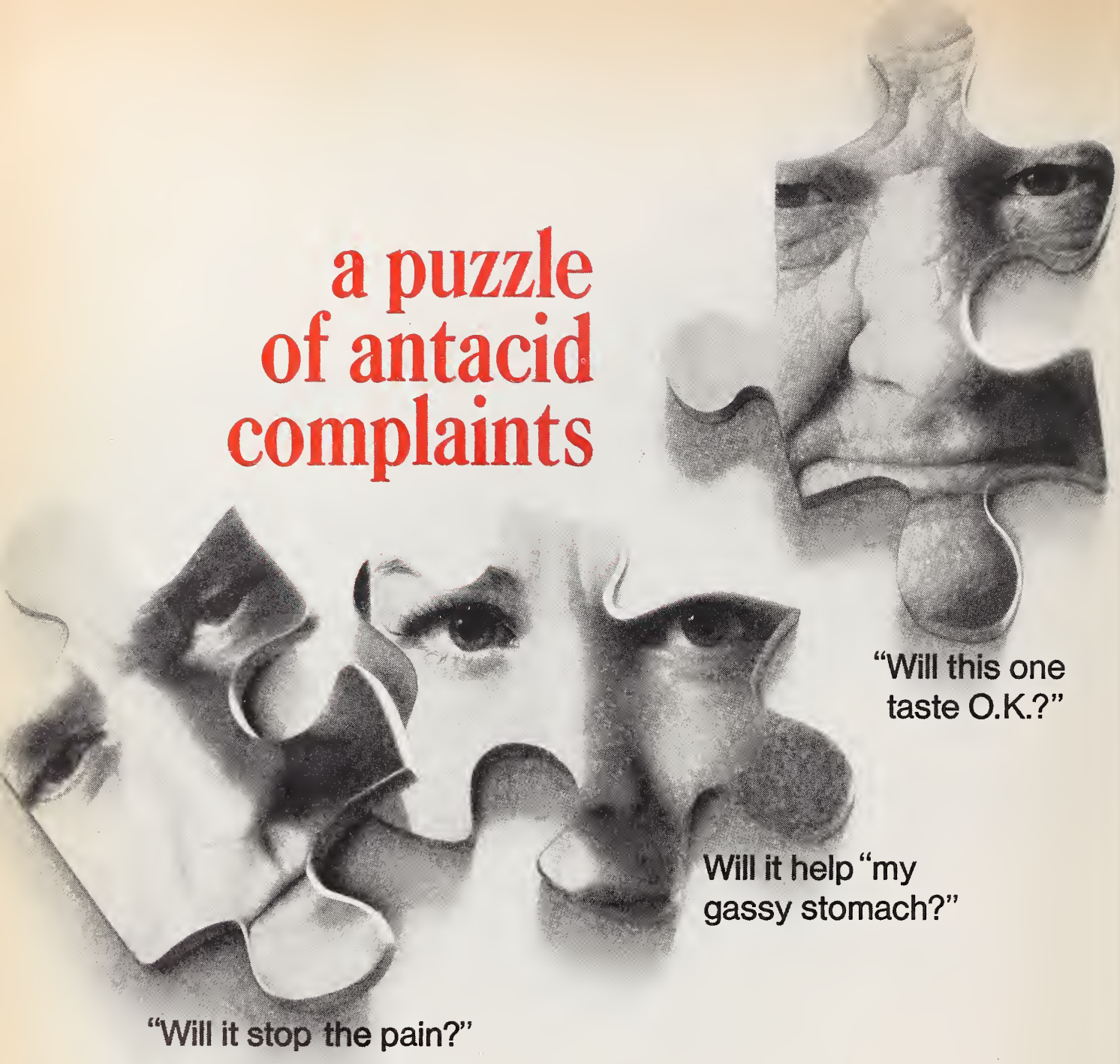
a puzzle of antacid complaints



Mylanta®

aluminum and magnesium hydroxide *plus* simethicone

a solution to peptic ulcer distress

Effective neutralization—
with the two most widely prescribed antacids: aluminum and magnesium hydroxides.

Concomitant relief of G.I. gas distress—
with the proven[1] defoaming action of simethicone.

Prolonged acceptance confirmed—
in 87.5% of 104 patients after a total of 20,459 documented days of therapy.[2]

Composition: Each Mylanta chewable tablet or teaspoonful (5 ml.) contains: magnesium hydroxide, 200 mg.; aluminum hydroxide, dried gel, 200 mg.; simethicone, 20 mg. Dosage: One or two tablets (well chewed or allowed to dissolve in the mouth) or one or two teaspoonfuls to be taken between meals and at bedtime.

References: 1. Hoon, J. R.: Arch. Surg. *93*:467 (Sept.) 1966.
2. Danhof, I. E., Personal communication.

Stuart Division/Pasadena, Calif.
ATLAS CHEMICAL INDUSTRIES, INC.

What's New?

Technicon Instruments Corporation has developed an automated blood chemistry machine which can process in one hour what it would normally take a technician a week to accomplish and at 60% less cost. With one-tenth of an ounce of serum, it can accurately determine serum levels of 12 substances —uric acid, cholesterol, total protein, glucose, calcium, alkaline phosphatase, phosphorus, urea, albumin, LDH, bilirubin and SGOT, with a reduction of the cost from $45.00 to about $12.00.

* * *

Upjohn reports the discovery of a method to prevent the rapid breakdown of an anticancer drug within the body. Cytarabine has been used experimentally to treat leukemia and herpes keratitis. Its value is limited because of transformation by an enzyme before the cancer or virus is destroyed. Upjohn scientists have three enzyme inhibitors which prevent this transformation. Each one of the three appear to enhance the action of cytarabine.

* * *

"A Cookbook for the Leisure Years", written by Phyllis MacDonald and published by Doubleday, advises two types of elderly cooks, those who wish to eat well, healthily and with a minimum of effort, and those who wish to utilize their extra time in preparing foods that take a lot of time. There are recipes for one (double for two), and recipes for preparing larger amounts and preserving part by freezing. Also recipes for the well known "light diet." The author even coaches the elderly reader on how to cook in a small kitchen and enjoy it.

* * *

DuPont is inviting inquiries in regard to Symmetrel—(amantadine hydrochloride) a prescription drug developed as a method of prophylaxis or prevention when taken prior to the onset of A_2 (Asian) flu. The National Communicable Disease Center has warned that substantial numbers of cases of A_2 influenza can be expected this winter, especially in the eastern parts of the country where light incidence in recent years has permitted an increase in the general level of susceptibility.

* * *

Ponstel, a new pain-relieving product, is announced by Parke-Davis as the result of nearly 25 years of research. It is a prescription drug but nonnarcotic and is recommended for muscular aches and sprains, back and other types of pain such as bursitis. Pain relief reaches a peak in about three hours and is maintained for three or four hours. It is marketed in 250 mg. Kapseals.

* * *

News of what is new in the medical supply industry is composed of abstracts from news releases by manufacturers—of pharmaceuticals, clinical laboratory supplies, instruments, and surgical appliances and book publishers. Each item is published as news and does not necessarily constitute an indorsement of a product or recommendation for its use by THE JOURNAL or by the Indiana State Medical Association.

One by one the family's downed Because the G.I. bug's around

Parepectolin for quick relief of acute diarrhea
...soothes colicky pain with paregoric*
...consolidates fluid stools with pectin
...adsorbs irritants with kaolin, and protects intestinal mucosa

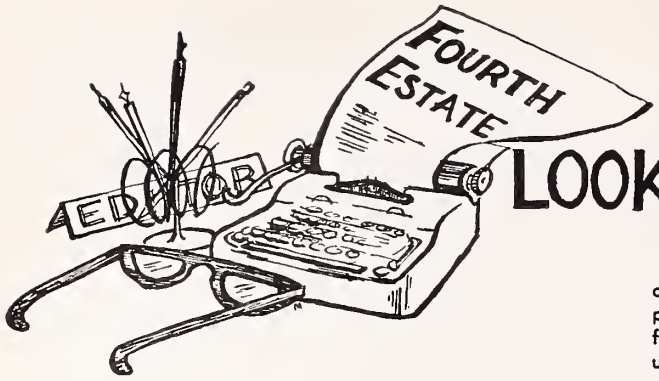
Whether it's a 24-hour "bug", a food problem, or simply nervousness and anxiety, Parepectolin will bring the diarrhea under control until etiology can be determined. In some cases, Parepectolin may be all the therapy necessary.

Parepectolin®

Each fluid ounce of creamy white suspension contains:
*Paregoric (equivalent) ..... (1.0 dram) 3.7 ml.
Contains opium (¼ grain) 15 mg. per fluid ounce.
warning: may be habit forming
Pectin ..... (2½ grains) 162 mg.
Kaolin (specially purified) .... (85 grains) 5.5 Gm.
(alcohol 0.69%)
Usual Adult Dose: One or two tablespoonfuls three times daily.
Usual Children's Dose: One or two teaspoonfuls three times daily.

ROREER

WILLIAM H. RORER, INC.
Fort Washington, Pa.



LOOKS AT MEDICINE

This section of THE JOURNAL is devoted to the presentation of opinions which appear on the editorial pages of the public press, and which are of interest to the medical profession. Its function is to review comments which may be favorable or unfavorable to medicine. Members are invited to submit editorial clippings for this column.

No Favorites

Creeping inflation has become an accepted fact of life. Many economists and most particularly those who espouse what is popularly known as the new economics reckon that a two or three percent rise in prices and wages each year are wholesome and necessary to sustain perpetual prosperity. However, the other side of the coin of a two to three percent price rise each year is a two to three percent decline in the value of the dollar.

The young, the healthy, the employed who receive constantly higher wages for a time, have the least to lose by riding along on the inflationary bandwagon. But in the end, the scythe of inflation plays no favors.

Not long ago, *The Wall Street Journal* featured a discussion of spiraling medical costs based upon its own survey of scores of physicians and hospital administrators. The survey found no chicanery among doctors and hospitals. In the words of *The Journal,* "The real cause. . .is a sharp and sudden rise in the cost of practically everything — personnel. supplies and equipment — involved in providing medical care."

Doctors and hospitals across the land have been compelled to pass a portion of these rising costs, which cannot be wholly absorbed by improved efficiency, along to the patients. In many activities, costs can be cut by reducing quality of products or making packages smaller — but not in the field of medicine.

Even the severest critics of the medical profession are slow to find fault with the overall standards of medicine in the U.S. And, it is a certainty that so long as doctors are free agents those standards will remain at present high levels, even as they cooperate to the best of their ability to meet the tragic problems of inflationary cost increases.— *Franklin Daily Journal,* Dec. 8, 1967.

Trouble in Medicine

When one considers the status of medical care in the United States, two striking facts stand out. One is that, technically speaking, the quality of care in this country is the best in the world. The other is that, because of a persistent doctor shortage and poor distribution of those we have, optimum medical care is not available to large numbers of Americans. This is not a new situation. It already was evident 15 or 20 years ago, and has become worse rather than better.

Medical schools in the United States will graduate something more than 7,500 new physicians next spring. This may sound like a great many until the total is measured against projections made nearly a decade ago that by 1965 there would have to be 11,000 new doctors annually just to maintain the 1959 ratio of one per 750 of our population. There is, in short, a serious under-production of physicians even though the federal government now provides funds to help build medical schools.

This is complicated by two factors, overspecialization and a strong trend among medical school graduates to go into research. Specialists tend to gravitate toward big population centers. Commitment of many young physicians to research also reduces the number available for practice in smaller communities. Dr. George E. Burket Jr., president of the American Academy of General Practice, says this has created a "medical vacuum in the small cities and rural areas that has grown to alarming proportions today." That is no exaggeration. Dr. Burket, whose organization is the second largest in the profession, maintains that although American medicine is first-rate it is not being made available to all Americans because of high costs and the severe shortage of physicians. This, he says, is "American medicine's dilemma and its hangup." He points to the federal government's "schizophrenic policy" which "on the one hand deplores the lack of comprehensive care while on the other it force feeds medical research to the point of attracting thousands of young doctors from practice and into this glamour field."

Dr. Burket's criticism both hits the mark and suggests what must be done. Somehow, the profession and government health authorities must cooperate to increase the number of doctors being trained and to

funnel more of them into general private practice. Under present conditions, too many Americans are on the outside looking in when it comes to getting adequate medical care.—*Terre Haute Tribune*, Dec. 1, 1967.

Great Man Of Medicine

One of the truly great men of American medicine, Dr. Harris B Shumacker Jr., is retiring as chairman of surgery at the Indiana University School of Medicine. He will now devote all of his time and his considerable talents to research and education at the I.U. Medical Center.

In his 20 years with Indiana, Dr. Shumacker has given strength and distinction to the surgery department, to the medical school and to the university.

He has trained hundreds of surgeons in the techniques and technologies of heart and vascular surgery. These surgeons, and their patients, owe a great and unpayable debt to Dr. Shumacker.

He has been among the world's leaders in coronary research, particularly in the development of heart-lung machines and in the use of artificial substitutes for heart valves and arteries. His colleagues believe he is very close to success in his efforts now to develop an artificial human heart, a prospect with promise far greater than the heart transplant procedures.

It would not be until 1973 that the university's administrative policies would require Dr. Shumacker to retire as department chairman.

The department is now beginning a great period of expansion, diversification and innovation, much as it was when Dr. Shumacker became its chairman in 1948.

It is both better and fairer to appoint a new chairman now than it would be to wait until all of this is accomplished, he said in his letter of resignation.

This is remarkable generosity, a further proof of the greatness in the man. We are fortunate beyond measure to have Dr. Shumacker among us.—*Indianapolis Star*, Jan. 17, 1968.

Wanted: One Doctor

The brand-new $45,000 Southeastern Medical Center, which served an estimated 9,000 persons in Southern Cass County, more than likely will be out of business when it observes its first anniversary Tuesday.

The facility, officially opened and dedicated last Jan. 9, probably will be closed because there isn't a doctor to practice in it. The man who practiced there, Dr. Victor Rivera, 37, left Friday to be a resident physician in training at the University of Louisville hospital. No other doctors have been talked into working there and, as a result, the doors have been closed to the public.

The 9,000 persons it was designed to serve must now go to either Logansport or Kokomo for treatment of most illnesses. There is one doctor left to serve the area, Dr. Charles (Tony) Dutchess, who has an office in Galveston.

But the center along U.S. 35 south of Walton is vacant. Its examination, waiting, reception, consultation, emergency and x-ray rooms as well as its laboratory are empty.—*Indianapolis News*, Jan. 5, 1968.

Educational Cooperation

That is another interesting example of educational cooperation worked out between Gary Methodist Hospital and Purdue University. Three years on a Purdue campus leading to one year in Methodist's School of Medical Technology will now lead to a medical technology degree.

It is not a Northwest Indiana breakthrough. Gary Mercy Hospital has had the same arrangement with Indiana University and St. Joseph campuses. But both arrangements are important for three reasons.

First they show the potential of educational cooperation within this area, something already being worked out effectively between Purdue and area industries.

Second, they underline this area's need for — and interest in — medical education of all kinds, and that should be a help when new efforts are made with the next legislature to win Lake County the I.U. Medical School branch it deserves.

And, finally, the increasing complexity of hospital treatment and the increasing demand for it—under both medicare and private health insurance programs — have generated a growing demand for medical technologists. Anything that can be done to fill it is a bonus to the health field, and it is good to see our area awake to the need.—*Gary Post-Tribune*, Jan. 3, 1968.

Ambitious Program

The Lawrence County Health Department has adopted a highly ambitious program for the year 1968 and if it accomplishes half of its announced goals, it will have done a tremendous job—the best ever.

It seems impossible that the small department will be able to delve deeply into all of the fields it hopes to during the year, but the officials — Health Officer Dr. Donald M. Kerr, and Sanitarian Paul McBride, are to be commended for looking so energetically into the new year.

The year 1968 is likely to produce some problems which have not existed to any great extent previously. We are thinking at the moment about the extension of "city" water lines into extensive rural areas. This is a great advance and the fact that farmers and small communities will have safe, treated water for drinking and cooking will, in itself, be a long step forward from the health standpoint. We understand that few private water sources in this area are completely safe and virtually all are in constant danger of contamination.

But the water systems will raise new problems. People who have been on short water rations in the

Continued on page 323.

Mead Johnson—pharmaceuticals created for your specialized clinical needs

She can expect to continue Oracon for years

ORACON®

16 White—Ethinyl Estradiol, 0.1 mg. Tablets; 5 Pink—Dimethisterone, 25 mg., and Ethinyl Estradiol, 0.1 mg. Tablets

Only 4.4% of patients taking Oracon discontinued it because of side effects

ORACON in a total conception-control program. Generally, withdrawal bleeding is comparable to her usual menstrual flow, even after prolonged use. Incidence of amenorrhea was less than 1% in original studies. Breakthrough bleeding occurred in only 1.5% of full cycles completed, and intractable monilial vaginitis was not reported.

Patients can continue ORACON comfortably. For years. Although a cause and effect relationship has been neither established nor disproved, alertness to the possibility of serious occurrences such as thromboembolism is necessary in any program with any oral contraceptive. Contraindications, medical ramifications, and long-range considerations in the use of ORACON, the same as those for all oral contraceptives, follow.

Mead Johnson also offers these important prerequisites for success in a conception-control program: information for the patient to help her understand conception control; and packaging to guide her in using the product correctly, according to your directions.

to guide you in prescribing ORACON

Indication: Oral contraception.

Effectiveness: Although some pregnancies have occurred while on therapy, oral contraception is the most effective method known.

Mechanism of Action: Gonadotropin suppression.

Contraindications: Thrombophlebitis, history of thrombophlebitis or pulmonary embolism; liver dysfunction or disease; known or suspected carcinoma of breast or genital organs; undiagnosed vaginal bleeding.

Warnings: Discontinue medication pending examination if there is sudden partial or complete loss of vision, or if there is a sudden onset of proptosis, diplopia, or migraine. If examination reveals papilledema or retinal vascular lesions, medication should be withdrawn. Since the safety of ORACON in pregnancy has not been demonstrated, it is recommended that for any patient who has missed two consecutive periods, pregnancy should be ruled out before continuing the contraceptive regimen. If the patient has not adhered to the prescribed schedule, the possibility of pregnancy should be considered at the time of the first missed period. Detectable amounts of the active ingredients in oral contraceptives have been identified in the milk of mothers receiving these drugs. The significance of this to the infant has not been determined.

Precautions: The pretreatment physical examination should include special reference to breast and pelvic organs, as well as a Papanicolaou smear. Endocrine and possibly liver function tests may be affected by treatment with ORACON. Therefore, if such tests are abnormal in a patient taking ORACON, it is recommended that they be repeated after the drug has been withdrawn for two months. Under the influence of estrogen-progestogen preparations, pre-existing uterine fibromyomata may increase in size. Because these agents may cause some degree of fluid retention, conditions that might be influenced by this factor, such as epilepsy, migraine, asthma, cardiac or renal dysfunction, require careful observation. ORACON should be used with caution in patients with a history of cerebrovascular accident. In relation to breakthrough bleeding, as in all cases of irregular bleeding per vaginam, nonfunctional causes should be borne in mind. In cases of undiagnosed vaginal bleeding, adequate diagnostic measures are indicated. Patients with a history of psychic depression should be carefully observed and the drug discontinued if the depression recurs to a serious degree. Any possible influence of prolonged ORACON therapy on pituitary, ovarian, adrenal, hepatic or uterine function awaits further study. A decrease in glucose tolerance has been observed in a small percentage of patients on oral contraceptives. The mechanism of this decrease is obscure. For this reason, diabetic patients should be carefully observed while receiving ORACON therapy. Because of the occasional occurrence of thrombophlebitis and pulmonary embolism in patients taking oral contraceptives, the physician should be alert to the earliest manifestations of the disease. Because of the effects of estrogens on epiphyseal closure, ORACON should be used judiciously in young patients in whom bone growth is not complete. The age of the patient constitutes no absolute limiting factor, although treatment with ORACON may mask the onset of the climacteric. The pathologist should be advised of ORACON therapy when relevant specimens are submitted.

Side Effects: The following adverse reactions have been

continued on next page

observed in patients receiving oral contraceptives: nausea, vomiting, gastrointestinal symptoms (such as abdominal cramps and bloating), breakthrough bleeding, spotting, change in menstrual flow, amenorrhea, edema, chloasma or melasma, breast changes (tenderness, enlargement, secretion), change in weight (increase or decrease), changes in cervical erosion and cervical secretions, suppression of lactation when given immediately post-partum, cholestatic jaundice, migraine, rash (allergic), rise in blood pressure in susceptible individuals, mental depression. Although the following have been reported as side effects in users of oral contraceptives, no cause and effect relationship has been established: anovulation post-treatment, premenstrual-like syndrome, changes in libido, changes in appetite, cystitis-like syndrome, headache, nervousness, dizziness, fatigue, backache, hirsutism, loss of scalp hair, erythema multiforme, erythema nodosum, hemorrhagic eruption, itching. Post-marketing experience with ORACON has revealed that hypermenorrhea and acne may also occur. The following occurrences have been observed in users of oral contraceptives. A cause and effect relationship has neither been established nor disproved: thrombophlebitis, pulmonary embolism, neuro-ocular lesions. The following laboratory results may be altered by the use of oral contraceptives: increased sulfobromophthalein and other hepatic function tests; coagulation tests (increase in prothrombin, Factors VII, VIII, IX, and X); thyroid function (increase in PBI and butanol extractable protein bound iodine and decrease in T^3 values); metyrapone test; pregnanediol determination.

Administration: Counting onset of menses as Day 1, the patient starts medication on Day 5 of the cycle and takes one white tablet daily from Day 5 through Day 20, then one pink tablet daily from Day 21 through Day 25. Patients should be cautioned to follow the dosage schedule strictly. Evening administration is suggested. An additional contraceptive method is recommended for the first 7 tablet days of the first cycle of ORACON usage. If the regimen is interrupted, for the fullest possible protection an additional contraceptive method is recommended for the rest of the cycle. If flow should not occur by the 7th day after taking the last pink tablet, the next course of therapy should be initiated on that day, thereby allowing 6 full days without medication. Some physicians prefer to stipulate that the patient never allow more than 6 unmedicated days to elapse between cycles regardless of the time of onset of withdrawal bleeding. If two consecutive periods are missed, the possibility of pregnancy should be considered and the patient should report to the physician. However, pregnancy should be suspected at the first missed period if the patient has deviated from instructions. For those few occasions when breakthrough bleeding occurs, the following recommendations are made: (a) Spotting. Continue medication. (b) Menstrual-type flow. Discontinue medication and begin a new medication cycle on the fifth day. Because of the rarity of frank breakthrough bleeding, especially after the first few cycles, it is not necessary to provide the patient with additional tablets to allow for doubling the dose. Recurring breakthrough bleeding, particularly after the first few cycles, should be reported to the physician for further investigation. Because of the common occurrence of increased cervical mucus, it is recommended that the patient be apprised of this possibility.

Availability: ORACON is available as 16 white and 5 pink tablets. Each white tablet contains 0.1 mg. of ethinyl estradiol; each pink tablet contains 25 mg. of dimethisterone and 0.1 mg. of ethinyl estradiol. Each month's supply includes patient instructions. Complete details on ORACON are available from Mead Johnson Laboratories.

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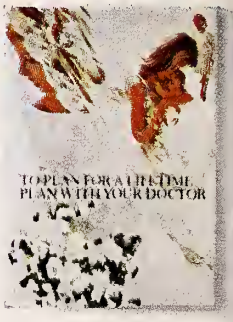

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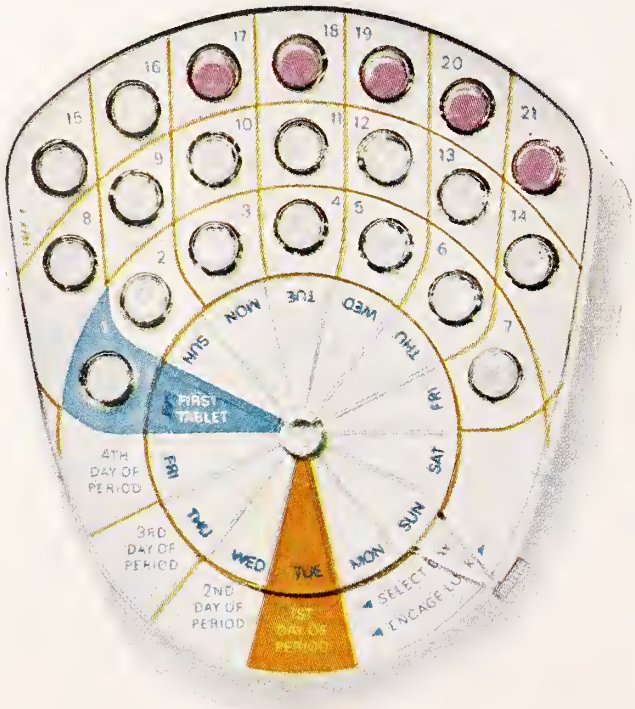

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past will have an unlimited supply now. So it is reasonable to assume that they will use more water. And when water consumption rises, so does the problem of sewage disposal.

It is the opinion of Dr. Kerr and Mr. McBride that a great many rural water subscribers will have inadequate sewage disposal facilities. This means there will be more surfacing of sewage fluids, thereby creating new health problems.

This is one of the major problems to which the health department will devote attention this year.

We would advise anyone having septic tank or sewage disposal problems to contact the health department for advice and counsel. It is the law that any new septic tank systems must be built with health department permits and must be inspected. And the department should be consulted on any problems with existing systems.

A septic tank and finger system properly installed will mean less trouble and expense in the future, so it is well to do the job right in the first place. The health department's services are available at no cost.

The matter of overflowing septic tanks is a serious one, particularly when it occurs on a large scale. The overflow finds its way into streams of the county, thus causing pollution, the effects of which are far reaching. Also, the overflow often finds its way into sink holes which pollute underground water supplies, including private wells. These are the reasons the health department is interested in the problem.

The health department also plans continued effort to establish a county sanitary land fill and trash pick-up program. This program is closely associated with the pollution problem, with the added problems of rat and mouse control and fly and mosquito breeding.

We are happy, also, that the department plans more frequent inspection of food-handling establishments. The consumer must depend on the health authorities to keep food places sanitary, because the ordinary individual never sees conditions under which food is prepared or handled.

Other commendable programs of the health department this year will include promotion of city bag service for trash and garbage collection; development of a visiting nurses' association to provide more people for home health care; conduct a rat study; continue the rabies control program, and others.—*Bedford Times-Mail*, Jan. 3, 1968.

Medical Idealism

The Yale university medical school has decided to bring its students into contact with patients during the first year of study. Dean Fredrick C. Redlich says that if a prospective doctor spends too much time in laboratories without contact with patients, he may lose "the wonderful idealism that made him want to be a doctor in the first place." Dean Redlich wants to see medical students "retain" the willingness to sit down and worry with patients that he says they have on entering medical school.

Surely everyone shares Dr. Redlich's desire that doctors be "humane and sensitive"—even "more humane and more sensitive," because these are good qualities in short supply. Early practice in the bedside manner and in spending time with patients may help to this end. But it must not be forgotten that motives other than idealism may lead to entry into medical school. Also, the time of practicing doctors is worth far more than is that of first-year medical students.

The values medical educators encourage in their seniors and interns will, we suspect, have more influence on how future doctors behave than will any humanizing of the first-year experience. Somehow, we have more confidence in professional idealism acquired during medical school than in idealism merely "retained" from adolescent years. —*Chicago Tribune*, Jan. 24, 1968. ◄

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Mucous nasal polyps have a large allergic component. Short-term corticosteroid therapy followed by long-term treatment of the underlying allergy will control polyps of recent origin. Excision is usually necessary only for the chronic irreversible variety.

Mucous Nasal Polyps Can Be Managed Non-Surgically

SIMON S. RUBIN, M.D.
Gary

NASAL polyps have tormented patients and plagued physicians for centuries. A thousand years before Christ, doctors had their favorite potions for "a polyps in the nose." There was even mention of an instrument for "eradicating nasal polyps." The world's first rhinologist, Hippocrates (460-370 B.C.), is credited with developing a technic for removal of polyps.

In 1691, a Dutch anatomist, Fredrick Ruysch, published a book entitled "One Hundred Remarks on Surgery and Anatomy" in which he discussed the various polyps of the nasopharynx. Early clinical literature did not mention allergy as an etiologic factor in polypoid formation. But as time went on, the connection between allergy and nasal polyps appeared more frequently in the literature.

In the early thirties, their condition was described as possibly due to allergy. Kern and Schenck[1,2] in 1934 presented evidence that allergy was the one constant factor in the etiology of mucous nasal polyps. This concept is in sharp contrast to the opinion that infection is in some way the underlying cause of their formation. Kern and Schenck's chief points were: "The incidence of mucous nasal polyps is strikingly high in allergic diseases of the respiratory tract, particularly in those allergic states which continue throughout the year, asthma and perennial allergic rhinitis. The incidence of nasal mucous polyps is extremely low in patients whose presenting symptoms are those of non-allergic diseases, even though these diseases entail a high incidence of paranasal sinus infection, as in bronchiectasis or lung abscess."[2]

Hansel[3] reported finding polyps in 25% of unselected cases of nasal allergy. Blumstein,[4] found asthma in 72% of 160 patients with nasal polyps in addition to 49 instances of other allergic manifestations such as hay fever, urticaria and atopic dermatitis.

Although allergy plays a large role in the formation of nasal mucous polyps, I have also found other conditions that aid in the formation of these growths. These conditions include local infection in the nose and sinuses, sensitivity or idiosyncracy to aspirin and the rauwolfia drugs used in the treatment of hypertension. Not all patients with these growths are aggravated by aspirin; but since it is a frequent factor, all patients are instructed to avoid aspirin. Since rauwolfia preparations also appear to be an aggravating factor, these drugs are not used.

It seems that these three aggravating causes, i.e., infection, aspirin and rauwolfia, influence the formation of polyps by causing chronic edema and swelling of the nasal mucosa. This author along with others[5-7] believes that polypoid formation is dependent upon edema in areas where the mucous membrane has a loose arrangement of the alveolar tissue with increased vascularity; thus edema appears easily. Long standing edema causes an accumulation of fluid. This fluid acts mechanically by the force of gravity to gradually produce the polyp. Polyps are seldom found on the septum and inferior turbinate, owing to the com-

pact structure of the mucous membrane there.

Infection alone, that is, infection in the absence of hypersensitivity of the individual, does not produce typical nasal mucous polyps.

Types of Polyps

According to Kern and Schenck,[2] non-malignant nasal polyps are classified as (1) mucous polyps or edematous fibromas, (2) mixed polypoid hyperplasia, and (3) papillary hypertrophy or mulberry polyps.

Mucous polyps, or "myxoid fibromas" may be simple or multiple. They are usually pedunculated, smooth, pale, translucent and often glossy in appearance. Their color varies from a translucent white or gray to bright yellow or reddish yellow. If they have been continually subjected to dust or irritants, the polyps may show marked discoloration. They are characteristically soft and jelly-like and, unless palpated, may be mistaken for mucous. When punctured, their serum content readily escapes, leaving an insignificant tag. The cellular constituents are relatively inconspicuous and include migratory lymphocytes, plasma cells, monocytes, and eosinophiles.

While the majority of polypoid lesions in the nose are true mucous polyps, other types of polypoid change may simulate mucous polyps despite an entirely different etiology. Neurogenic tumors are grossly similar to mucous polyps. Moreover, since they arise from the filaments of the olfactory nerve, they occur in the same localities.

Management and Therapy

The rhinologist has long realized that polypectomy is not the best form of treatment for nasal mucous polyps, since it affords only temporary relief of the nasal obstruction. Furthermore, with each surgical removal, normal nasal mucosa is removed and scar tissue follows. With these facts in mind, a non-surgical method of therapy is presented that appears to be more satisfactory for the treatment and prevention of recurrence of these growths.

The management of patients with mucous nasal polyps consists of first, immediate or short-term therapy for their dissolution and second, long-term treatment for preventing their regrowth. I have found that patients given a short course of corticosteroid therapy may avoid the necessity of polypectomy. The polyps that are of fairly recent origin usually disappear completely in five to ten days. Polyps that are chronic or have persisted for a long time become fibrotic and are no longer reversible; these require surgical removal. However, all irreversible polyps requiring polypectomy should be examined histologically since they may be malignant growths.

Study

Observations on 53 patients (24 males and 29 females) diagnosed as having mucous nasal polyps form the basis of this report. Forty-five patients gave a history of hay fever, perennial allergic rhinitis, and/or bronchial asthma. The eight additional patients had no personal history of allergy, although five of them gave a history of familial allergy. Two of these 53 patients had seasonal hay fever with mucous nasal polyps appearing only during their hay fever season. Three patients with perennial mucous nasal polyps presented a definitive history of aggravation during the hay fever season.

Forty-nine patients had polypectomies prior to the onset of this study. The average number of polypectomies was four. One patient had had 18 polypectomies.

Method of Treatment

Betamethasone was the corticosteroid used in the majority of the patients. In a previous paper,[8] betamethasone had been shown to have a good effect upon the respiratory tract without noticeable side reaction.

The method of treatment for the short-term was as follows: patients were given two tablets of betamethasone 0.6mg. each, twice daily, for three days; then one tablet, twice daily for three days; then one tablet in the a.m. for two days; and finally one-half tablet in the a.m. for two days. (One course of therapy usually shrinks the mucous polyps completely if they are reversible). Patients also received a long-acting combination of antihistamine and vasoconstrictor drugs such as Dimetapp or Demazin to prevent swelling of the nasal mucosa and the nasal turbinates.

The patients were followed closely with blood examinations, urinalyses, and blood pressure readings. No patient who had a definite history of peptic ulcer or of diabetes received corticosteroids. There were no adverse effects from this short course of corticosteroid therapy.

The following regimen was used in the long-term therapy to prevent a recurrence of nasal mucous polyps. Every patient was given a complete allergic work-up including a thorough history to ascertain drug sensitivities, food allergies, or sensitivities to inhalants such as house dust, feathers, animal dander, pollens, molds, etc. Allergy tests included scratch and intradermal tests to inhalants and foods. Patients indicating positive reactions received desensitization therapy to the positive inhalants and a trial elimination of all the suspected foods. All patients received injections of a bacterial vaccine (H. influenza serobacterin mixed vaccine) since it is my belief that this procedure can prevent a possible allergic response of the nasal mucosa to local infection.

Aspirin and compounds containing aspirin frequently appear to cause nasal swelling in patients disposed to polyp formation, therefore these patients were given a list of compounds containing aspirin which they were to avoid and instructed to use aspirin substitutes such as Tylenol or plain Darvon. Since rauwolfia products used in the treatment of hypertension reportedly cause swelling of the nasal

turbinates, patients being treated for hypertension were advised to avoid drugs containing derivatives of rauwolfia.

Results

Twenty-four patients have had no recurrences of polyps for over one year or longer. Twenty-eight patients had some recurrence while on long-term therapy. Recurrence almost always followed an upper respiratory infection or a severe allergic reaction such as aggravation during the hay fever season. However, in all cases, the polyps completely disappeared with a repeated short course of corticosteroids. No patients required further polypectomies after this management was instituted. One patient was referred to a rhinologist for polypectomy and histological examination of the polyps since the diagnosis was uncertain. This patient did not return and was lost to the study.

Case Report

A 58-year-old carpenter gave a history of having nasal polyps for ten years. He had had nine polypectomies and reported having allergic rhinitis for as long as he could remember. At first, he had only seasonal allergic rhinitis (in the summertime). Then, for about 12 years, he had perennial allergic rhinitis with severe nasal obstruction. About seven or eight years ago, he had lost his ability to smell because of nasal obstruction. Bilateral examination of the nose revealed complete obstruction of both nasal passages due to swollen turbinates and innumerable nasal polyps. A complete blood count was normal except for 6% eosinophiles. His blood pressure was 140/86. Urinalysis was normal. Allergy skin tests revealed positive reactions to several molds, animal danders, feathers, house dust, cocoa and the cabbage family. He was given a course of corticosteroid (betamethasone) therapy.

In eight days he had complete regression of his mucous polyps and was able to breathe freely through his nose. For the first time in several years, he was able to smell. He was advised to take one or two Demazin tablets every eight hours at the first sign of nasal blockage. In addition, he was told to avoid animal dander, the positive reacting foods and compounds containing aspirin. He was started on injections of a mold mixture, Endo Dust, and a respiratory vaccine. He has had no recurrence of his polyps for over two years.

Summary

Since the early work of Kern and Schenck, it has become generally accepted that nasal mucous polyps are allergic in origin. An important cause of their formation appears to be vasodilation and mucous membrane edema that accompany the allergic reaction.

Although the allergic reaction may be the underlying cause, local nasal infection, sensitivity to aspirin and hypertensive drugs containing rauwolfia may play a role in the aggravation and production of nasal mucous polyps in the susceptible allergic individual.

Non-surgical treatment consists of (1) a short course of treatment with betamethasone, (2) oral therapy with a long-acting compound containing an antihistamine and sympathomimetic vasoconstrictor (such as Dimetapp or Demazin) to help maintain a normal mucosa and reduce the swelling of the nasal turbinates.

To prevent the recurrence of mucous nasal polyps, allergic management is instituted first, by avoiding the incriminating allergens and second, by desensitization with the positive inhalants. The addition of bacterial vaccine therapy may help prevent an allergic response of the nasal mucosa to local infection.

Although the nasal mucous polyp is the one most frequently seen and most easily treated with corticosteroids, other types occasionally are seen that do not respond to this management. This latter type of polyp should be removed surgically and examined microscopically.

Thus, by this management, surgical removal of nasal mucous polyps becomes unnecessary unless the polyps have become irreversible.

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Pericardiectomy should be considered in the treatment of patients with nonconstricting pericarditis who fail to respond to medical management.

Pericardiectomy in Patients With Nonconstrictive Pericarditis

HARRY SIDERYS, M.D.
CEDRIC JOHNSON, M.D.
JOHN PITTMAN, M.D.
Indianapolis*

ALTHOUGH pericardiectomy has been well established as the treatment of choice in patients with constrictive pericarditis, it is occasionally indicated in patients with disease of the pericardium without evidence of constriction. This report describes two patients with nonconstrictive disease of the pericardium who failed to respond to medical therapy and were successfully treated by pericardiectomy.

Case Reports

Case I: An 18-year-old white male was first hospitalized in September, 1965. He had been completely well until just prior to admission when he developed pain over the midanterior chest. The pain radiated through his chest to the left scapula and the back of his neck. He stated the pain was more severe when he was in a supine position and consequently the patient slept sitting up. Tiredness and loss of appetite were associated with the pain. These acute symptoms persisted for four or five days and then gradually improved and disappeared over a period of several weeks.

During the following 18 months, the patient was hospitalized on three occasions for recurrence of these symptoms. Between hospitalizations, he was asymptomatic. He was able to lie flat without shortness of breath or chest pain and his appetite would return to normal. During his acute exacerbations, the patient ran a low grade fever. His total leukocyte count varied between 12,000 and 18,000 with a shift to the left. L. E. preps were repeatedly negative and second strength P.P.D. skin test was negative. SGOT and CPK were both slightly elevated but his venous pressure remained normal. During each exacerbation, roentgenograms of the chest revealed an enlarged transverse cardiac diameter which would return to normal during the remissions (Figure I).

A diagnosis of acute recurring nonspecific pericarditis was made. The patient was treated symptomatically, without steroids, and was maintained on Bicillin while at home. On February 10, 1967, while asymptomatic, he was admitted for elective pericardiectomy.

Admission physical examination was negative. The heart was not enlarged; hemogram and enzyme studies were all normal. The patient was explored through a median sternotomy. The pericardium was opaque and thickened and there were

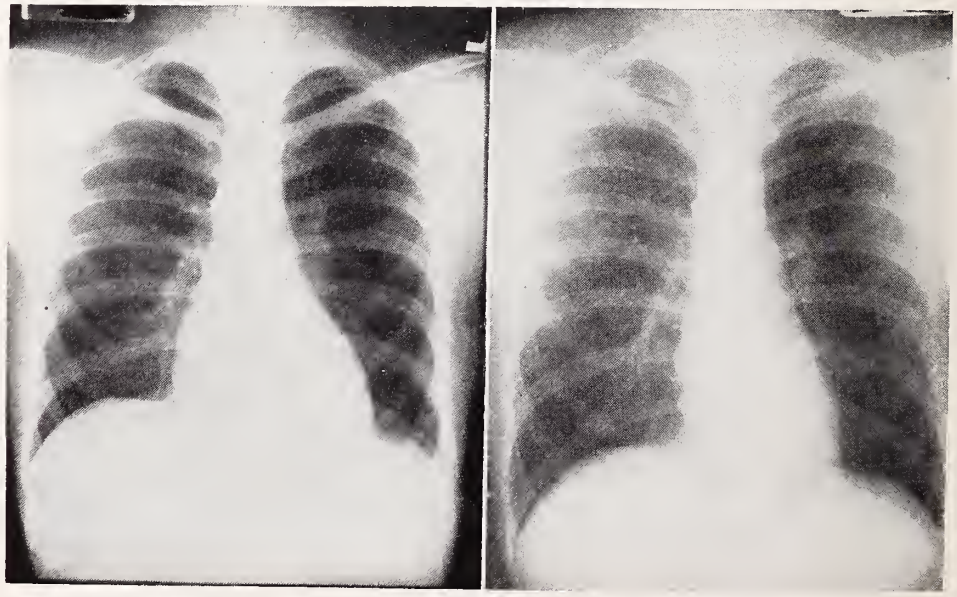

FIGURE 1

(A.) ILLUSTRATES enlargement of the heart shadow while the patient was symptomatic (Case I).

(B.) Shows a smaller heart shadow while the same patient was in remission.

* From the Department of Cardiovascular Surgery, Methodist Hospital Graduate Medical Center, 1604 N. Capitol Ave., Indianapolis 46207.

many adhesions between the pericardium and lung. The entire pericardium, back to the phrenic nerves and including the diaphragmatic portion, was excised. Microscopic examination revealed a thickened pericardium of mature connective tissue and occasional foci of lymphocytic infiltrate. No granulomas or specific types of inflammatory reaction were seen. The patient's postoperative recovery was excellent and he was discharged one week after surgery. He has gradually resumed full activity and has had no recurrence of chest symptoms.

Case II: This patient, a 24-year-old white male, was admitted to the hospital on January 4, 1967, complaining of chest pain and a fever of ten days duration. He first noticed chest pain three weeks prior to admission. Associated with the onset of the pain was anorexia and a chill. The pain was described as a dull substernal pain which was more intense with deep inspiration and sudden turning of the body. The patient thought he could feel fluid moving within his chest as he changed position. The pain persisted unchanged during the weeks prior to admission and for ten days prior to admission, the patient was febrile with a temperature as high at 103° F. He received penicillin the day prior to admission.

The patient stated he had enjoyed good health prior to this acute episode and had never experienced these symptoms before. He had had pneumonia at the age of 12 and had been exposed to tuberculosis eight years prior to admission. Follow-up films of his chest were always normal. Two weeks before the onset of his chest pain, he had had three teeth extracted. Following this procedure his gums became so swollen that he could not wear his dental prosthesis.

At the time of admission the patient appeared well nourished but acutely ill. Blood pressure was 100/80, temperature was 102°. Examination of the head and neck revealed the neck veins to be minimally distended. Examination of the chest revealed no abnormalities. Auscultation of the heart revealed distant heart sounds but there was a regular sinus rhythm without murmurs, thrills or rubs. There was a positive hepatojugular reflex present. The remainder of the physical examination was within normal limits.

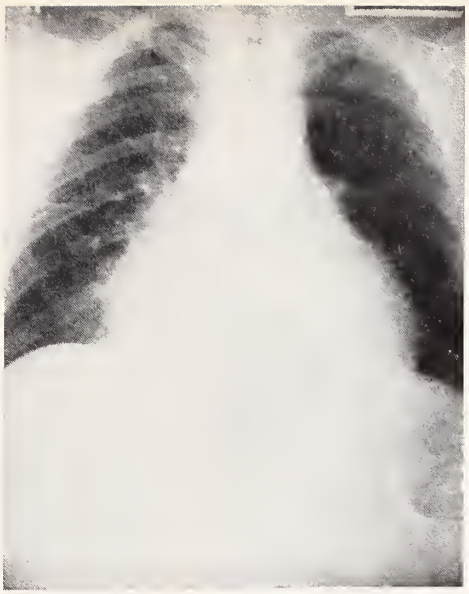

FIGURE 2

THE size and configuration of the heart shadow suggested pericardial effusion (Case II).

Chest roentgenograms revealed an enlarged heart with "water bottle" configuration (Figure 2). His hemoglobin was 12.2 and the total leukocyte count 18,200 with a shift to the left. The second strength P.P.D. was negative. Massive doses of antibiotics were started intravenously. The following day pericardiocentesis was performed and 20 cc of what appeared to be purulent fluid was aspirated. The pericardial fluid had many polymorphonuclear cells but there were no organisms seen on smear and the cultures were sterile. His central venous pressure varied between 9 and 14 cms. Further attempts at pericardiocentesis did not yield fluid despite the fact that the echocardiogram indicated pericardial effusion was present. Although the patient was treated intensively for more than two weeks with antibiotics, low grade fever and chest pain persisted. A diagnosis of purulent pericarditis, refractory to medical therapy, was made.

On January 24, 1967, the patient was explored through a left anterior thoracotomy. Thickened inflamed pericardium was found surrounding a gelatinous coagulum. The pericardium was resected as widely as possible. Microscopic examination revealed thickened pericardium with nests of necrosis and polymorphonuclear cells—compatible with purulent pericarditis.

Postoperatively the patient made a rapid recovery, his temperature remained normal and thus far he has remained well.

Discussion

Pericardiectomy has been established as an effective treatment for patients with constrictive pericarditis. There are few contraindictions to this procedure and the results are gratifying.[1] There are, however, patients with nonconstricting pericarditis who fail to respond rapidly or completely to medical management. Pericardiectomy should be considered in these patients.

Acute, recurrent idiopathic pericarditis has been recognized with increasing frequency in the past decade.[2,3] This disease may follow a self-limited or a recurrent pattern and although many feel it is a benign disease, at least 12 deaths have been reported.[2]

The most typical feature of this disease is anterior chest pain. This pain is aggravated by sudden motion or coughing and also by lying in the supine position. Sitting up or leaning forward alleviates the pain. Fever, leukocytosis and friction rub develop sometimes during the illness. EKG findings are those of pericarditis and roentgenograms of the chest show an enlarged cardiac silhouette. If fluid is obtained from the pericardium, the cultures usually remain sterile. Tuberculin tests are frequently negative. The acute attacks are typically self-limited, the signs and symptoms disappearing after a few weeks.

In the recurring type of idiopathic pericarditis, acute exacerbation will occur after resumption of activity. Steroids shorten the course of the acute illness but do not afford protection against recurrences.[4-6]

We feel that the use of steroids is more dangerous than pericardiectomy in the treatment of this disease. Although there have been instances of recurrence after pericardiectomy, this operation is generally curative.[7,8] The young adult who is a semi-invalid because of exacerbations of pericarditis on resumption of activity is able to resume full activity after surgery.

Purulent pericarditis is a rare and dangerous lesion. Before the advent of antibiotics, it was often fatal. Occasional patients were salvaged by wide drainage of the pericardial space.

Pyogenic infection of the pericardium may result from direct extension of an abscess or empyema or more commonly from septicemia associated with another serious infection.

Pneumonitis and pleural effusion is frequently associated with purulent pericarditis. Staphylococcus is the most common etiologic organism. Pneumococcus and meningococcus organisms are rarely identified as the pathogen. In approximately one-third of cases, the organism cannot be grown in culture but the typical acute septic course and purulent pericardial fluid identifies the disease.

Initial treatment includes intense antibiotic therapy with pericardiocentesis to identify the fluid and organism if possible.[9] Workers in this field agree that if these measures alone do not rapidly improve the clinical picture, surgery is indicated.[10] Although drainage procedures and pericardial windows were more popular in the past, the more adequate drainage afforded by wide pericardiectomy is now generally favored.[11]

Another type of nonconstricting pericardial disease that may best be treated by pericardiectomy is chronic pericardial effusion. Occasionally the cause of chronic pericardial effusion is tuberculosis but more commonly it is nonspecific. Mannix and Dennis[12] successfully treated a number of such patients surgically and recommend pericardiectomy in patients with chronic pericardial effusion whenever a prompt remission in constitutional symptoms and disappearance of the fluid do not occur with conservative therapy.

Summary

Pericardiectomy is occasionally useful in treating pericardial disease not associated with constriction or cardiac tamponade. Two illustrative cases are presented. One had chronic recurring idiopathic pericarditis and the other purulent pericarditis. Both patients responded well to pericardiectomy. This procedure should be considered for pericardial disease which does not readily respond to medical therapy.

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The "Luck" of an Injury Repair

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Indianapolis

INJURY and progress photos of white female with partial avulsion of right upper eyelid through medial canthal ligament, upper lacrimal canaliculus and across most of the upper tarsal plate. Favorable result in primary repair was greatly dependent on the lack of damaged adjacent tissues, expert anesthesia and uncomplicated postoperative course.

A 21-month-old female caught her right upper eyelid on a screen door hook at home, causing avulsion of the medial three fourths of the lid. There was very little hematoma or edema, and the wound edges were not ragged. The upper lacrimal canaliculus had been torn from the common canaliculus near the tear sac. Under general anesthesia, the upper punctum, canaliculus and tear duct were canulated with #18 Viers needle. P-50 plastic tubing was placed through it into the nose, and the hollow needle was removed.

Enough of the lateral attachment of the levator and tarsus was undamaged, so that the torn edge of the levator tendon was located without dissection. This was reattached with some overlapping to the upper edge of the tarsal plate using four interrupted #000000 chromic sutures. The medial canthal ligament was closed with two #00000 chromic sutures behind the upper canaliculus. The orbicularis and skin were closed in layers with interrupted sutures.

After the lid repair, the plastic tube inside the right nostril was pulled out and tied to the proximal end that entered the upper punctum. This was sutured to the cheek with #000000 silk and left in place for three months. She was given prophylactic penicillin and streptomycin for six days and released from the hospital on the 10th day after the injury and repair. Post-hospital course was uneventful.

Nine months following repair, there was minimal swelling above the upper canaliculus and almost no lid lag on elevation of the right eye. Lacrimal drainage was normal, and there was no interruption of the eyelid cilia. Cycloplegic findings: +150 OU, eom, media and fundi normal. ◄

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Coarctation of the Aorta

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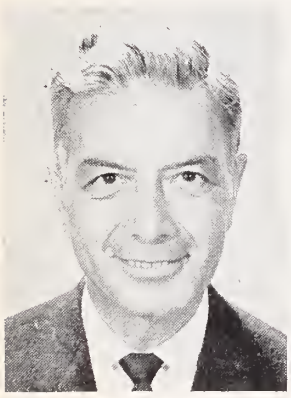
SINCE the first reports of successful surgical repair of coarctation of the aorta 22 years ago,[1,2] it has become quite clear that the life span of persons with untreated coarctation is markedly shortened and that operative therapy yields very satisfactory results. Not so fully appreciated is the difference which exists between infants, on the one hand, and children and adults, on the other, with respect to ease of diagnosis, frequency of accompanying cardiac symptoms and risk involved in treatment. These matters, in turn, relate to the differing problems encountered in one group, comprising cases of uncomplicated coarctation and coarctation associated with easily correctable lesions or those reasonably well tolerated, and in another group in which the coarctation is associated with symptom-producing and life-threatening cardiac anomalies. Though the original method of operative repair, namely, excision and end-to-end anastomosis, is applicable in the majority of instances, increasing experience makes it evident that optimal results can be obtained in all patients treated only if various alternate procedures are utilized when indicated. This brief discussion is concerned with these problems.



Diagnosis and Treatment

The diagnosis of coarctation in children and adults is generally easy. The pulse is strong and the blood pressure usually elevated in the upper extremities. Pulses are reduced or not palpable in the lower extremities. Not infrequently abnormal pulsation is felt in arteries of the chest wall. A systolic basal murmur is characteristically heard and often an even louder systolic murmur is audible posteriorly over the area of the upper dorsal spine. The electrocardiogram tends to be normal or show left ventricular enlargement. Rib notching is usually present in older children and adults. The area of post-stenotic dilatation of the descending thoracic aorta makes an impression on the barium-filled esophagus.

Many of the patients have no symptoms. Approximately half of the patients we have treated have had some dyspnea on exertion, usually quite mild in degree, and about half had some fatigue in the lower extremities on exercise. Few have had complaints indicative of significant cardiac dysfunction.

The results of treatment are quite good. This is particularly true in those who have uncomplicated coarctation, coarctation and patent ductus arteriosus, and coarctation associated with some reasonably well tolerated intracardiac lesion. Approximately 180 such patients were treated between July, 1948, and January, 1967. Three deaths occurred, a fatality rate of about 1.7%. No death occurred in this group after February 4th, 1955, the period during which most of the patients were treated. A second intracardiac operation has been performed in a few for correction of such associated lesions as pulmonary valvular stenosis, subaortic stenosis and mitral insufficiency. These patients have done well. Three patients died after discharge from the hospital. One, with aortic insufficiency treated prior to the era of prosthetic valves, died long afterwards of congestive heart failure, another died of progressive coronary artery atherosclerosis and still another of a cerebrovascular accident.

The operative mortality has been somewhat higher in children and adults with more complex associated lesions such as aneurysm, ventricular septal defect or ventricular septal defect and large patent ductus arteriosus.

In about 65% of cases, the blood pressure fell to normal within one week. In most of the remainder, it fell to a normal level soon thereafter. A few patients underwent a slow but progressive fall in pressure over a period of months. Many of the patients maintain a very labile blood pressure. In them, the pressure tends to be elevated when they are first examined and to fall to a normal or near normal level with rest on the examining table. A small number have persistent systolic hypertension

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Aided by grants from the James Whitcomb Riley Memorial Association and the United States Public Health Service, PHS-HE-02035-12.

in spite of having equal pressures in upper and lower extremities and every evidence of a widely patent aortic pathway.

Coarctation in Infants

In contrast to the situation with respect to children and adults, the diagnosis and treatment of coarctation in infancy is difficult. Often the diagnosis has been established only terminally or after death. In those infants ill enough to require hospital admission, the overall mortality has been high. When my associates and I reviewed the literature several years ago,[3] we pointed out that the fatality rates in two recent reports were 47 and 62%, respectively, 50 and 64% in those treated medically and 37 and 41% in those treated surgically. At that time we studied the records of 72 infants admitted to the James Whitcomb Riley Hospital.

This analysis and the literature gave convincing evidence of the difficulty in diagnosis. Congestive heart failure was the most common finding in our cases. Cyanosis was very frequently encountered. In contrast to the situation with true cyanotic heart disease, these patients usually showed marked improvement in color when they breathed pure oxygen for a short period. Most of them had a systolic murmur, but it was often difficult to localize and changeable, especially if congestive heart failure was present. The most constant sign of heart failure was hepatic enlargement and edema was rare.

When the blood pressure was determined in the upper and the lower extremities by the flush technic, a striking difference was usually apparent. A difference of twenty millimeters of mercury appeared diagnostically conclusive. About nine out of ten of our patients were in congestive heart failure. The electrocardiogram was normal in less than 30%, 16% showed left ventricular hypertrophy, 19% both right and left ventricular hypertrophy and the largest group (37%) right ventricular hypertrophy alone. Conventional radiologic study was not greatly helpful. Interpretation of chamber enlargement was rather difficult. Cardiac enlargement was thought to be generalized in 14%, to show right ventricular enlargement in 43%, left ventricular enlargement in 31% and left atrial enlargement in 54%. Pulmonary congestion was present in over half. Nearly 70% of those studied by cardiac catheterization had some degree of pulmonary hypertension and all but one of these had a patent ductus arteriosus or an intracardiac shunt. Aortography proved very useful.

The results of nonsurgical treatment were most discouraging. Of fourteen patients whose management did not include digitalization, eleven died (80%). Of the 58 treated by digitalization and other cardiac measures, only three, all of whom apparently had isolated coarctation, improved and were not operated upon. Death occurred in 28 or 48%. Only one of these 28 had coarctation alone and only five coarctation and patent ductus arteriosus, the remainder having more complex associated anomalies. Twenty-seven (47%) remained in failure and required operative treatment. Sixteen of them or (59%) survived operation and were improved.

The survival rate was 86% in the 14 infants with coarctation alone or coarctation and patent ductus arteriosus treated surgically and only 25% in the 20 not operated upon. Five of six with somewhat more serious associated lesions treated surgically lived (45%), while all 13 treated medically died. In still another group with much more serious and complex anomalies, all nine treated medically died as did the five who were operated upon.

This review convinced us that every effort should be bent towards establishing the correct diagnosis in infants with signs and symptoms of congestive failure, that coarctation should be always thought of as a possibility and that surgical treatment offers a great deal more than medical. Of particular aid in establishing the diagnosis is the demonstration of a discrepancy in pulse and blood pressure between the upper and lower extremities and selective cineangiocardiography when needed. The initial treatment of infants with congestive heart failure should be an intensive medical regimen including oxygen, digitalis, diuretics and salt restriction. If no definite improvement occurs in 12 hours or should evidence of congestive failure persist for two days, cardiac catheterization and angiographic study are indicated in order to establish a proper diagnosis. When the diagnosis of coarctation is evident and there is continued failure in spite of medical therapy, operation should be carried out on an emergency basis.

Best Procedure

The best procedure in most cases of coarctation is excision of the area of coarctation and end-to-end aortic anastomosis. Sometimes, however, it is not possible to reconstruct the aortic pathway adequately in this fashion and in some instances where possible, it is not the best procedure. In infants it would appear that an aortoplasty[4] has certain definite advantages. It should offer better growth potential since there is no circumferential suture line. Long ago it became evident that simply turning down the distally divided subclavian for anastomosis to the descending aorta beyond the area of coarctation did not generally yield good results.

There are, however, a number of ways in which the subclavian can be effectively utilized.[5] It can be divided and depressed so that the aorta can be brought up to an incision made on its caudal aspect. It can be detached from the arch and turned down so that when reaffixed to the arch it points caudally and can be sutured to the descending aorta without danger of kinking or bending. It can also be used as a single pedicle flap graft sutured to a longi-

tudinal incision made through the narrowed segment in order to provide an adequate aortic lumen.[6] In some instances, a simple patch graft is the best way to achieve an adequate lumen.[7] Finally there are instances in which a circumferential plastic graft must be utilized. It is my feeling, however, that it is preferable to use autogenous tissues in aortic reconstruction if at all possible.

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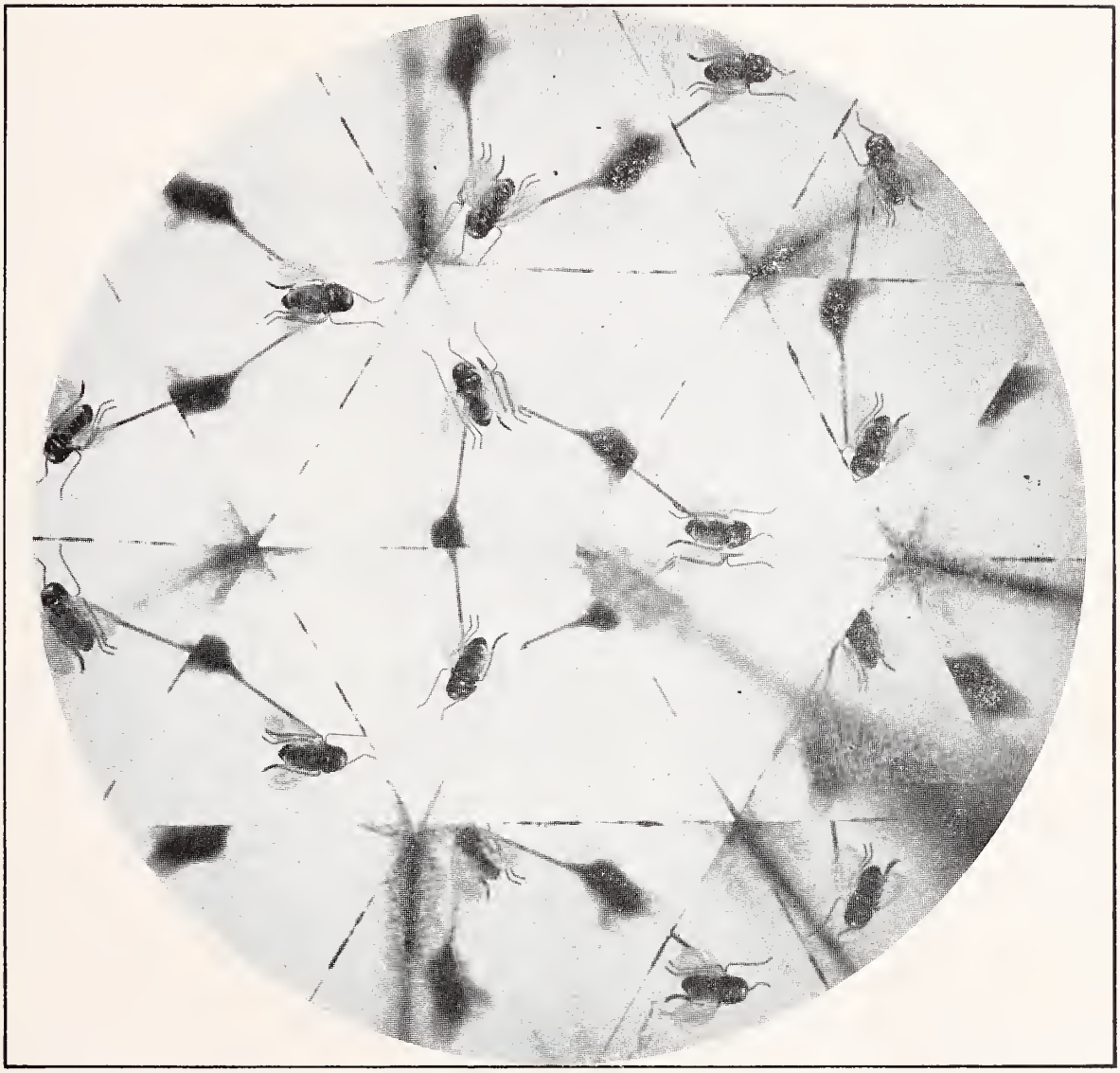
Why has not man a microscopic eye? For this plain reason: man is not a fly.

Alexander Pope: *An Essay on Man (1732)*



A fly takes *the narrow view* In its microcosmic universe, a grain of salt is a massive crystalline block. A blob of candy on a mole hill is a banquet on a mountain top. But man sees things *in broader perspective.* Unburdened by the finite, he projects himself among the stars . . . and through the boundless vision of his mind's eye, infinity unfolds before him. We at White-Haines take *the broad view* in meeting your professional requirements. Across the wide spectrum of our services, we provide high-quality RX service, instruments and office equipment which, in your hands, give humanity *a new outlook* on life. We supply *everything but the patient.*

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The Case of Perpetual, Poignant Penance

ARNOLD LIEBERMAN, M.D.
New York, N.Y.

THE "fact" of yesterday may become the "obvious error" of today. At the beginning of the 19th century, yellow fever epidemic patients were bled and purged. The distinguished leader of the medical profession, Dr. Benjamin Rush, KNEW that these were life-saving procedures! In 1965, we celebrated the centenary of "Listerism": a hundred years of antisepsis. Have you considered the intense opposition and ridicule his innovation encountered? Semmelweiss, the advocate of cleanliness in the delivery room, had been literally driven into insanity by the stodgy, staid doctors insisting on the "obvious" status quo!

All living tissues require nourishment for survival. A limb can survive hours of total circulatory deprivation but the much more sensitive myocardial fibrils can work only a couple of minutes after the cut-off of their blood supply. There is a current medical aphorism that "four minutes of no blood to the brain results in a human vegetable."

Now, as to the last, is that really true? *ALWAYS?* Or—just most of the time? And/or: can there be *other* explanations for the seeming exceptions?

Dysdaemonogenous Dysfunction

When first seen by us, the case of Ralph Ritz seemed to be entirely routine. At the age of 45, he was just another Canadian visiting New York City. He was combining business with a belated honeymoon, touring the World's Fair going strong on the Flushing Meadows. His bride of a month was with him as they emerged from their hotel. He had complained of nothing at all. In fact, Ralph had been talking animatedly when he gave his wife "a funny look" even as he slumped unconscious to the sidewalk. He turned "red in the face"; breathing became slow and stertorous.

The ambulance came promptly; within another 10 minutes, he was being examined by the intern of a hospital at which I am an attending. The temperature was normal; blood pressure was 140/90; pulse was 140 and regular; respirations were heavy at 28 per minute. The left pupil was more dilated than the right. The entire right side of the body appeared to be paralyzed. On that side, the deep tendon reflexes were exaggerated.

The resident agreed with the above except that he recorded tongue deviation to the right plus a positive Babinski and Hoffman. The unequivocal diagnosis of a right hemiplegia was made. It appeared that there had to be a vascular lesion along the course of the left internal carotid artery. The abrupt onset in a relatively younger person made a ruptured berry aneurysm the number one suspect.

I saw the patient a little later. He was regaining consciousness and trying to talk, even while aphasic. The wife signed a permit for a spinal tap. The opening pressure was 148 mm. of H_2O; at closing, 130. The fluid was crystal clear; microscopically, nothing was to be seen. The sugar was 101 mgs.% and Cl's were 120 meq/L. The urine as well as the c.b.c. and sedimentation rate were absolutely normal. The blood sugar was 129, urea nitrogen was 18 and the cholesterol stood at 180.

We now had to entertain the diagnosis of a space occupying lesion. Personally, I thought most seriously of an intraluminar vascular obstruction due to either a clot or a prolonged vasospasm (Lieberman, A., Intermittent Cerebral Insufficiency, *Geriatrics*, 20:213-218, March, 1965. See also, E. H. Burrows, et al. in *J. Neurol., Neurosurg. & Psychiat.* 28:533-539, 1966). Angiograms were indicated; the neurosurgeon was called and responded. He agreed to perform the maneuver.

Moratic Mechanisms

All this took time; the next morning, we had a conversation with the patient's mother; she had had time to fly in from Montreal. She gave us the further information that — several years previously — Ralph had undergone a very similar attack; that one had lasted almost a fortnight. Also, at the outbreak of World War II, the army had turned Ralph down for hypertension and glaucoma. Over the intervening years, Ralph had been using pilocarpine eye-drops. An elder brother, the father's undisguised favorite, *had* enlisted and *had* been

killed in the fighting! Ralph had been made to feel, somehow, guilty for being alive while his brother had perished.

The Ritz's were quite well to do. As a matter of course, Ralph had gone into the business. And yet, no matter how hard he tried, his father — as long as he lived — constantly railed at his surviving son. Ralph was in permanent purgatory undergoing *perpetual, poignant penance.* The irretrievable past was a persisting present!

Our EKG's were normal; the blood pressure stayed within acceptable limits. The EEG had produced only "a few single, scattered delta bursts, slightly higher in left leads . . . borderline tracing . . . suggest a repeat tracing in six weeks."

The eye consultant had examined the patient thoroughly. Bilaterally, the tensions were only 17. The fundi were absolutely normal. There was no objective proof or even suggestion of any glaucomatous pathology.

On the third day of Ralph's stay in the intensive care unit, arteriograms were performed. This once formidable procedure was accomplished with ease (Sadek K. Hillal, New Techniques in Cerebral Angiography. *Angiology* 18:316-322, May, 1967.) The Circle of Willis with all the major branches filled well. We had time for a brain scan; it was totally A-OK. The Montreal physicians were phoned; we had a very interesting conversation. The leading neurologist of Canada had been called to see Ralph in his 1962 episode. This distinguished authority was quoted as having found just what we did: nothing!

On the fourth day of Ralph's stay at our hospital, speech returned dramatically, suddenly and completely! By that evening, he was talking with earnest clarity—there was not even a trace of a residual slur. The very next morning, motor function returned: just as abruptly and just as completely!

The now obviously well man was forthwith discharged to the further care of the family physician. We had considered for our final summation, "hysterical conversion reaction." However, the chart bore my diagnosis as being, "prolonged vasospasm of cerebral artery."

The sequence of events left me dissatisfied. The subject of CVA has a personal connotation for me (See preface to my *Case Capsules*). Did Ralph *really* have a prolonged vasospasm? I know of no claim that such an entity actually exists. Can the *id* force the *super-ego* to blank out by some such mechanism?

For all our vaunted knowledge explosion, the very fact of my being compelled to use obsolescent Freudian terminology is a revelation of the depths of our actual ignorance; what do we REALLY know re the basis in macromolecular medicine of "memory" (long OR short term), "thinking" — other such terms? Are we any better off than Hippocrates with his, "blood, yellow bile, black bile and phlegm"? Our present status in this area can be equated with the pre Emil Fischer era in biochemistry, i.e., almost the Dark Ages of the late 19th century. Our first fumbling analysis (such as are summarized in a recent Ciba Symposium*) holds great promise but is really comparable with the original approaches to protein and enzyme syntheses that started at the turn of this century.

We can take hope from the progress registered in these areas. Not so long ago, the bare fact of the existence of pituitary hormones was adumbrated. Now, the *American Journal of Medicine* can devote almost a whole issue to a symposium on Anti-Diuretic Drugs (42:651-828, May, 1967). Promising leads exploring brain molecular structure are an increasing part of the literature, e.g., (See: Stanley H. Appel—Inhibition of Brain Protein Synthesis, *Tr. of N.Y. Acad. of Sc.*, Series II, 29:63-70, Nov., 1966). The day is coming when the difference between a conditioned (Pavlov) reflex and the inborn, instinctive reflexes will be reducible to a set of precise, steric, physico-chemical formulae.

All editorializing aside, the Montreal Expo-67 gave me a most convenient reason for contacting Ralph Ritz's physicians in person. I had a thoroughly pleasant personal and professional set of contacts; I also was brought up to the minute re our intriguing patient. The family business was being run by the mother. Since the death of Ralph's father, everything had been bequeathed to her. At the specific, death-bed request of the father, Ralph had had to stay

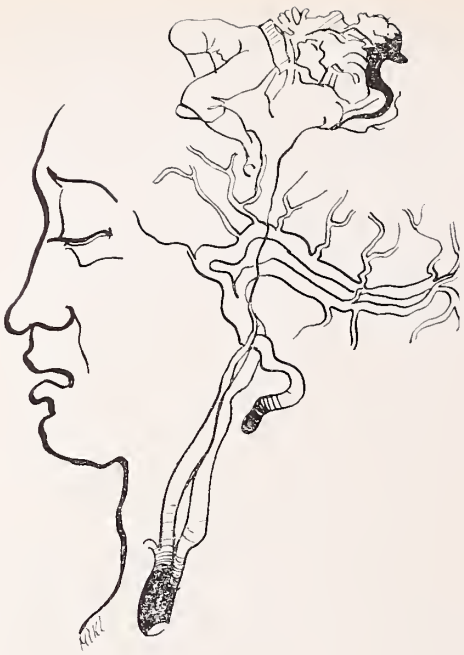
* *Principles of Biomolecular Organization*, Little, Brown & Co., 1966, $15.00.

away from the funeral!! Ralph had grown increasingly irresponsible. He had launched some get-rich-quick schemes that had flopped all too badly.The mother almost had to bail him out of jail on one such hare-brained scheme. Ralph was still married; he had no children.

Mundane Malingering?

Just that winter, Ralph had had a THIRD episode of sudden blanking out right in the family physician's office! The good doctor paused to weigh his words. He could not be absolutely certain of the hysterical component; he suspected actual malingering! He refrained from as much as picking Ralph up. The doctor just let him lie there, slumped on the floor of an examining cubicle! Whatever the etiology: *SIX* hours of such non-treatment sufficed. Very suddenly, the patient sat up; in another 15 minutes, he was fully recovered.

I queried, "Too bad that there was no possibility of doing an arteriogram right there and then! Would



that not have settled the issue of a hysterical vasospasm vs. mundane malingering?"

My very charming colleague grimaced wryly even as he commented, "This would have been super-intellectual pioneering on a really heroic scale."

I called the "boy's" mother on the phone. She evaded a direct meeting. Was she thinking that I was merely trying to collect on a defaulted bill? Be that as it may, I can be candid in saying that the picture is much clearer but that I am still perplexed. It is my belief that prolonged cerebral anemia does not necessarily mean a conked out brain in a human vegetable. Is Ralph another instance? AND — *OR* —are there other explanations? Was he an instance of conversion hysteria *with* prolonged vasospasm? Am I simply being obdurate in trying to promote a clever malingerer into something more? Why not admit that we in New York City just were fooled?

My Montreal colleague has given me a promise that he will do an arteriogram — stat — the next time around! Until then, quite honestly, I retain my doubts! What do you think? ◄

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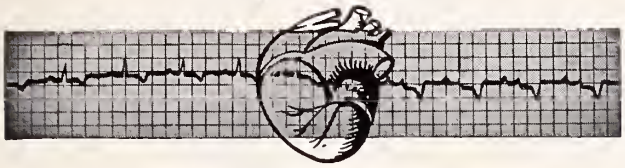
Electrocardiogram
of the month



Presented as a regular feature of The JOURNAL, Electrocardiogram of the Month is a series of short talks on cardiovascular diagnosis and treatment, edited by the staff of the Krannert Heart Research Institute, Marion County General Hospital and the Department of Medicine, Indiana University School of Medicine, Indianapolis.

Arrhythmia Due to Hypoxia

CHARLES FISCH, M.D.
Indianapolis

IN the preceding "ECG of the Month" dealing with the subject of chronic obstructive pulmonary emphysema (COPE), it was pointed out that patients with COPE are sensitive to digitalis and are subject to an increased incidence of arrhythmias. It was also suggested that this may be due to accompanying hypoxia, acidosis, hypercarbia and electrolyte disturbances.

The purpose of this communication is to demonstrate the role of hypoxia in the genesis of arrhythmias. The tracing reproduced in Figure 1 was obtained from a patient with COPE in heart failure which was treated with digitalis and complicating Adams-Stokes disease. The latter was controlled with an artificial pacemaker. The stimulus artifact and the resultant QRS complexes are easily seen in all the leads. At the time the oxygen saturation was 54%, numerous spontaneous ventricular beats were recorded. Some appear to be premature (e.g.. second and fifth QRS in lead III) and others (e.g., sixth and eleventh in lead III) represent an idioventricular escape rhythm. Administration of oxygen caused an elevation of oxygen saturation to 96% and eliminated the ventricular arrhythmia.

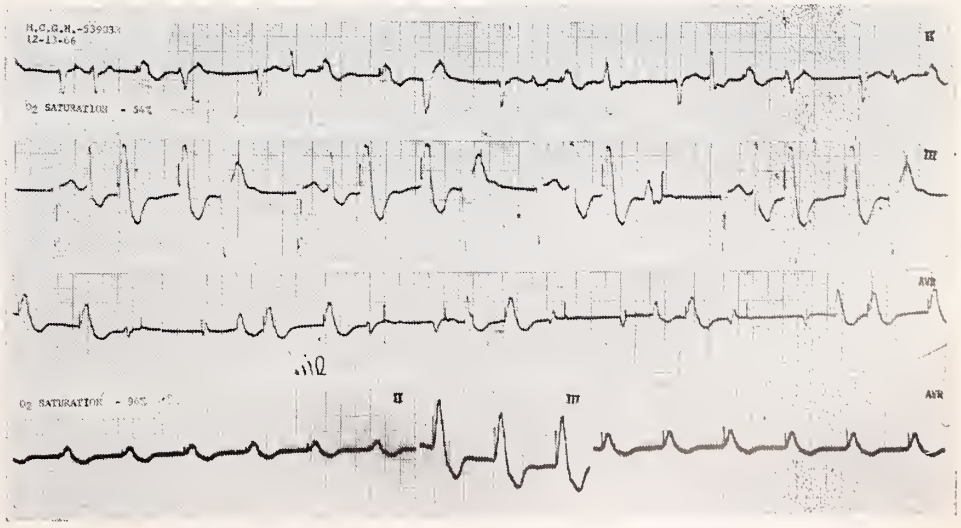
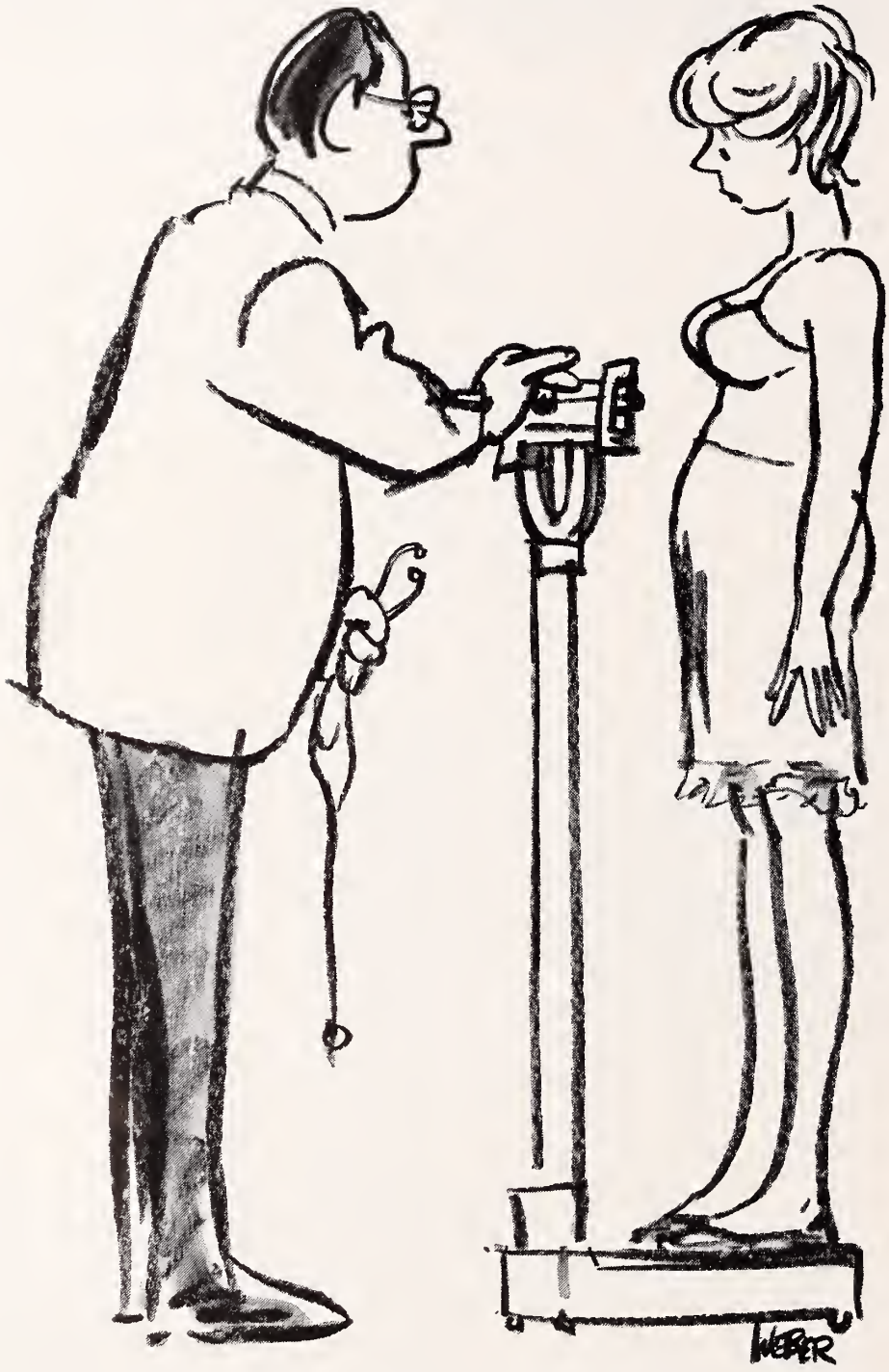


FIGURE 1
THE effect of O_2 saturation on ventricular ectopic beats.



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Meprobamate: Drowsiness may occur and can be associated with ataxia; the symptom can usually be controlled by decreasing the dose, or by concomitant administration of central stimulants. Allergic or idiosyncratic reactions: maculopapular rash, acute nonthrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever, transient leukopenia. A case of fatal bullous dermatitis, following administration of meprobamate and prednisolone, has been reported. Hypersensitivity has produced fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anuria, stomatitis, proctitis (1 case), anaphylaxis, agranulocytosis and thrombocytopenic purpura, and a fatal instance of aplastic anemia, but only when other drugs known to elicit these conditions were given concomitantly. Fast EEG activity, usually after excessive dosage. Impairment of visual accommodation. Massive overdosage may produce drowsiness, lethargy, stupor, ataxia, coma, shock, vasomotor and respiratory collapse.

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X-RAY CONFERENCE

Presented as a regular feature of *The Journal*, X-ray Conference is a series of short talks on procedure and radiologic diagnosis, edited by Erich K. Lang, M.D.

Collateral Circulation from the External to the Internal Carotid System

ERICH K. LANG, M.D.
*Shreveport, La.**

A 58-year-old white male was admitted to Methodist Hospital, Indianapolis, for a comprehensive workup and evaluation of his status following a cerebrovascular accident some six months previously.

The patient first was admitted with acute symptoms of a cerebrovascular accident, suggesting occlusive disease of the vascular system supplying the left hemisphere. Under conservative management, he improved steadily and was discharged some four weeks later without perceptable neurologic deficit. The patient was placed on long-term anticoagulation management, and returned six months after the acute episode for a comprehensive workup. The intent of this workup was to ascertain the presence or absence of a surgically correctable lesion in the carotid system.

Carotid arteriograms were performed and demonstrated a complete block of the left internal carotid artery, at its point of origin from the common carotid artery. Four second delayed films, however, showed refilling of the siphon segment of the left internal carotid, via huge collaterals from the external carotid. The supply was derived from the ophthalmic artery, the pterygopalatine branch, and the mid-meningeal branch. A satisfactory flow into the left midcerebral group was ascertained. The left anterior cerebral artery filled via the anterior communicator branch from the right carotid system (Figure 1).

In view of the lack of neurologic symptoms, and the arteriographic appearance of the intracerebral vascular system, it was postulated that a state of hemodynamic equilibrium had been reached, apparently furnishing adequate blood supply to the left hemisphere. An endarterectomy of this exceedingly long segment of the left internal carotid artery appeared to be contraindicated because of the extent of such a surgical endeavor and the poor prognostic outlook marred by frequent thrombosis of a long endarterectomized segment.

FIGURE 1

A delayed arteriographic phase film demonstrates refilling of the siphon segment of the left internal carotid artery via dilated collaterals of the ophthalmic artery, the pterygopalatine branch, and the mid-meningeal branch (arrows). Note the excellent filling of the left intracerebral group supplied via this collateral network. A complete block of the left internal carotid from its point of origin from the common carotid to the siphon segment of the left internal carotid is appreciated.

* From the Department of Radiology, Louisiana State University School of Medicine, Confederate Memorial Center, Shreveport 71106. Dr. Lang formerly was at Methodist Hospital, Indianapolis.

The patient was discharged on long-term anticoagulation therapy.

Discussion

Carotid arteriography after stabilization of a patient experiencing a cerebrovascular accident is indicated for assessment of the collateral supply of the affected hemisphere. The existing collateral pathway of the circle of Willis permits cross circulation from the right to the left carotid system via the anterior communicators and also cross circulation from the carotid and vertebrobasilar system via the posterior communicators.

In addition to these pre-existing collateral pathways, collateral channels between the external and internal carotid systems may develop. The ophthalmic artery, the pterygopalatine artery, and the mid-meningeal group are particularly prone to form a collateral network, supplying flow to the internal carotid system in a retrograde fashion. The flow via these collaterals will often suffice to sustain a patient, and a neurologic deficit need not result. The development of the collateral pathways between the external and the internal carotid system, however, encompasses time periods of two to four months to reach maximum effectiveness. The pre-existing collaterals of the circle of Willis are available for collateral flow to the contralateral hemisphere immediately.

The predominant site of involvement of the internal carotid arteries by extensive arteriosclerotic plaques is at the point of origin from the common carotid. For this reason, an effective collateral pathway via the external carotid system can frequently develop.

The magnitude of flow carried via the collateral pathways can be assessed by isotope flow studies, however, correlation to recovery and neurologic intactness of the patient is not convincing.

The arteriographic study is recommended as a diagnostic modality influencing our decision for operative intervention and particularly, endarterectomy of a stenosed or occluded segment of the internal carotid artery. The presence of an extensive collateral network and absence of neurologic symptoms will mitigate against surgical endarterectomy of a long segment and favor long-term anticoagulation therapy. ◀

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*As shown by *in vitro* studies.
1. Crunden, A. B., Jr., and Davis, W. A.: Am. J. Obst. & Gynec. *65*:311 (Feb.) 1953.

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Path-finder
PUBLISHED UNDER THE AUSPICES OF THE INDIANA ASSOCIATION OF PATHOLOGISTS

This series is intended to emphasize the importance of judicious selection and proper interpretation of newer laboratory procedures as applied to differential diagnosis of various diseases. It is edited by Leon L. Blum, M.D., Terre Haute.

Differential Diagnosis of the Month: INCREASED CO_2 CONTENT

H. P. PALMER, M.D.
*Franklin**

A 70-year-old female entered the hospital with a history of longstanding congestive heart failure, treated with a low sodium diet, digitalis and oral diuretics. The factors necessitating hospitalization at that time were refractory congestive heart failure, mental confusion and muscular weakness.

The pertinent physical findings were those of pitting edema of the legs, mental confusion, diminished deep tendon reflexes, pulmonary rales, and slow, shallow respirations. Serum potassium was 2.2 meq/L, serum chloride 95 meq/L, sodium 138 meq/L, and CO_2 content 33 meq/L. A chest x-ray revealed congestive changes and questionable pneumonitis. Since the elevated CO_2 content could have been on the basis of hypokalemic alkalosis or respiratory acidosis, arterial blood gases and pH were obtained. The partial pressures of CO_2 and oxygen were 38 mm Hg. and 80 mm Hg. respectively, with an oxygen saturation of 95.5%. The arterial pH was 7.55. The elevated blood pH and the normal arterial CO_2 pressure established the diagnosis of hypokalemic alkalosis. Since urine output was good, intravenous potassium was administered in five percent dextrose and water on three consecutive days, and she responded dramatically, with clearing of the sensorium, increased strength and cardiac compensation.

Comment

The proper interpretation of elevated CO_2 content is very hazardous without a blood pH determination in any acid-base disturbance. In the present situation, the elevated CO_2 content could have been on the basis of either a metabolic alkalosis or respiratory acidosis. The elevated blood pH clearly established the state of alkalosis and the normal CO_2 pressure in arterialized blood ruled out any concomitant respiratory acidosis.

It has been reported, in a study of over 4,000 cases, that two-thirds of the acid-base disturbances might have been misinterpreted or misdiagnosed if the CO_2 content had been relied upon alone.[1]

Hypokalemic alkalosis is one of the most common metabolic acid-base disturbances today, especially with the widespread use of diuretics, which enhance potassium excretion. The typical findings are those of increased bicarbonate or CO_2 content and an elevated pH. A low serum potassium in a patient who is difficult to manage, and unresponsive to therapy for congestive failure should suggest excess potassium loss as a possible cause of the refractory heart failure.

With an elevated CO_2 content, there is usually a reciprocally decreased chloride concentration, decreased sodium and decreased potassium in metabolic alkalosis due to loss of potassium. The partial pressure of CO_2 in the arterialized blood may be normal, slightly elevated or decreased since respiratory compensation for the alkalosis is an inefficient mechanism and is never a complete compensation.

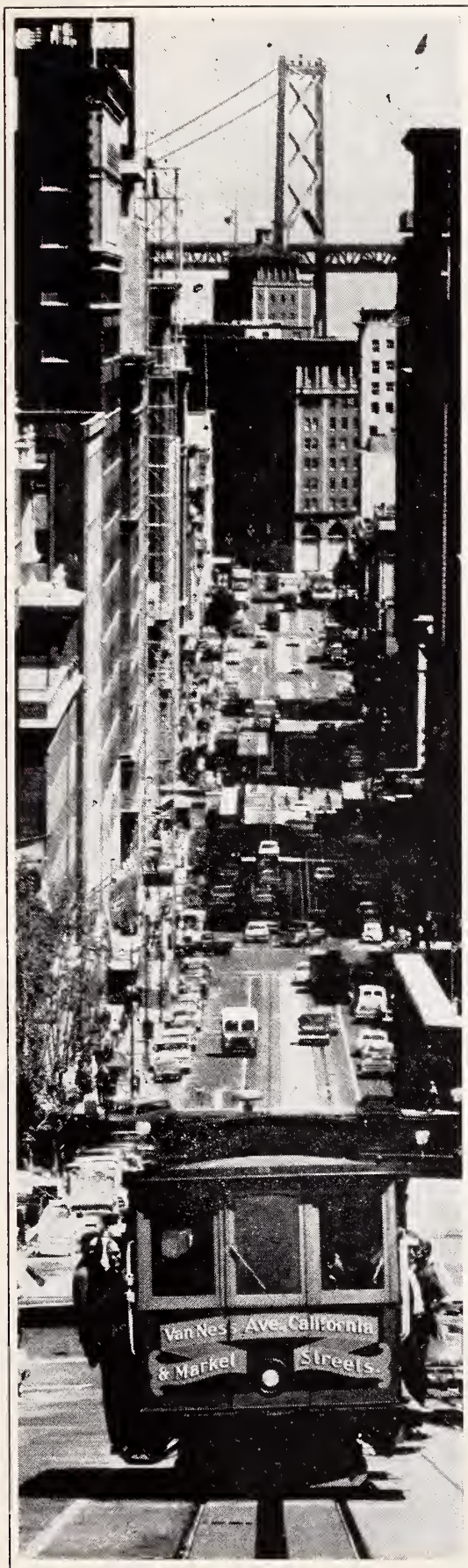
The prolonged administration of chlorothiazide and mercurial diuretics frequently results in a symptomatic hypopotassemia since the kidney conserves potassium poorly, if at all. It is therefore essential that potassium intake be supplemented in patients treated with diuretics for any prolonged period.

Some other causes of hypokalemic alkalosis include prolonged vomiting, gastric suction, gastrointestinal fistulae, diarrhea, excess adrenal corticoids, cirrhosis of the liver, primary aldosteronism and the polyuric phase of anuria.

REFERENCE

1. Workshop Manual on Blood pH, and Blood Gases, Council of Clinical Chemistry of the American Society of Clinical Pathologists, Raymond S. Gambino, 1963. ◄

* Pathologist, Johnson County Memorial Hospital, Franklin 46131.



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The Successful Disaster Plan

ISSUANCE of the Annual Report of the Indiana Committee on Trauma (American College of Surgeons) reminds us all that prior organization and planning is the most important ingredient in a successful disaster plan. And a few dry runs are a great help also.

Team organization and the assignment of command responsibility must be done before the disaster occurs. Arrangements for communications and for cooperation with police, civilian defense and fire department personnel should be accomplished before trouble develops.

While the highest skilled professionals cannot be organized into shifts beforehand, it is essential that some prior thought be given to this function. The bigger the disaster the more important it is to utilize only a part of the team at first or to relieve a goodly portion after the first few hours in order to have a rested team to take over at the end of the first twelve hours when the first shift becomes exhausted.

Organizing for and conducting the medical service in a disaster is a complicated undertaking. Books have been written about it. The following is a compact check list which the trauma committee has developed. If all disasters were to be run on these rules, there would be very little room for improvement.

Recommendations

1. Doctors must be oriented and organized to work in teams and not as individuals. Reserve forces must be planned so that continuing coverage is provided.
2. Command authority and responsibility must be clearly established and recognized by all concerned.
3. Liaison with the police and fire departments must be achieved on local and state levels.
4. Communication must be carefully planned and stand-by measures incorporated with responsible direction of local and state networks.
5. News media (radio, television and newspapers) must be used to full advantage. Congestion of the disaster area and the hospital situation must be avoided and responsible reporting must be encouraged.
6. Emergency vehicle operation must be further improved with training of the drivers, more adequate first aid at the disaster scene and coordinated assignments of the vehicles and patients.
7. Minimal movement of patients with adequate sorting and emergency care must be achieved at the disaster scene and in the hospital.
8. Continuity of patient care from the time of accident throughout the period of convalescence must be planned and pursued. Cooperative endeavor of doctors during the immediate crises and appropriate consideration of patient's desires in the after period must be achieved.
9. Practice drills in communication, command and coordinated endeavor with actual drills by all concerned should be planned at intervals.
10. Continuing efforts of all are very much in order, because the same mistakes are being made again and again and new ones arise as situations differ. Not one single phase of disaster planning or prosecution has proven satisfactory in every circumstance.

No Sounding Brass at Roche

IN this day of institutionalized charity it is refreshing to find evidence that the ideal of person-to-person responsibility is not dead.

Such responsibility is shown by

Roche Laboratories, division of Hoffmann-La Roche, Inc., manufacturer of pharmaceuticals. Roche has an indigent patient program under which a physician may obtain medication without charge for deserving patients who can't afford to buy it. All the doctor need do is to write Roche, giving a brief outline of the case. The drugs are sent directly to the doctor to be dispensed by him. Roche requires only the statement of the doctor—no names, no addresses, no statistical information, no red tape.

While almost all pharmaceutical manufacturers gladly cooperate with the physician who requests medication for indigent patients, Roche has made a program of a virtue by calling the attention of physicians to its largess, thereby encouraging its use.

From a certain point of view, elimination of private charity is a goal to be eagerly sought. Private charity tends to be highly selective at best and discriminatory at worst. As individuals we support institutions and organizations that operate closest to us or are most compatible with our background or modes of thought. That's why Catholics contribute to Catholic charities, Protestants to Protestant charities, and Jews to Jewish charities. Presumably each group takes care of its own, and this exclusivism becomes a point of pride: we take care of our own!

Tax-supported charity, on the other hand, takes the position, at least in this country and in this period, that needy are needy regardless of religious affiliation, color of skin, or ethnic background. It is colder, more impersonal, and perhaps more efficient than private charity. Because it is tax-supported and a function of the government, it has an unfortunate tendency to encourage the recipient to believe that he is entitled to charitable support. We have come a long way from the notion that to succor the poor is to promote laziness and irresponsibility among them. Nevertheless, it cannot be denied that the practical applications of the nation's compassion for the poor and the economically deprived have served also to undermine the old fashioned virtues of providence and independence.

When the government got into the business of furnishing medical care to the indigent senior citizen, it rendered pointless the thousands of personal charities by doctors all over the country. Where doctors formerly treated the poor on a person-to-person basis, without charge, the government now reimburses the doctor under the appropriate program and after the proper forms are filled out. But the medically indigent are always with us in considerable number, and there are enough of them not covered by a government program to require the continuation of personal good works on the part of physicians. This exercise in human compassion, quiet, unpublicized, non-tax-deductible and prevalent, is in keeping with the highest ideals of our profession. That Roche and other pharmaceutical manufacturers understand and support our efforts in a most meaningful manner speaks well of the essentially sensitive rapport between these elements of the health care establishment in the United States.**—David N. Goldstein, M.D., Editorial Director,** *The Wisconsin Medical Journal* **66:581, December, 1967. Reprinted with permission.**

Editorial Notes...

Expansion of the study of the relation of diet to coronary disease and the launching of the second phase of the project is being considered by the National Heart Institute following the recommendation for further study by the National Diet-Heart Study Committee of which Dr. Irvine Page is chairman. The initial phase involved 2,400 men, age 45 to 54, and a two-year study has been completed. The proposed and expanded form would study 40,000 to 100,000 men, would run for five years and might cost as much as $50 million. The work so far has shown that there is a strong association between coronary disease and serum cholesterol level, that the cholesterol level may be lowered by proper diet and that such a diet is acceptable for long periods by most people.

There were 113,000 VA volunteers who gave 8.84 million hours of time to help patients last year in 166 VA hospitals. There are all manner of people interested in and dedicated to this volunteer work—men and women and young people of almost all age brackets. Their services to the hospitalized veterans cover a wide range, and with some 66,000 Viet-Nam era veterans coming from active duty each month, the need is increasing.

The Cancer Control Program of the Public Health Service has made a grant of $149,222 for the development of a new type of endoscope to be constructed with light-transmitting synthetic fibers, much more flexible than glass and more useful in reaching relatively inaccessible cavities. Preliminary work indicates that the new instrument will be adaptable to examination of the throat, larynx, bronchi, stomach and rectosigmoid. One bundle of fibers will transmit the illumination, another bundle will return an enlarged image and channels will be provided for biopsy instruments and for washing fluids.

The Atomic Energy Commission originally devised a system for providing practically dust-free rooms for assembly work on delicate instruments. The same system greatly reduces the number of airborne bacteria in operating rooms and laboratories. Special filters and a type of ceiling construction which provides a downward flow of air that carries particles to the floor and out of the room is the

answer. Colony counts of six or seven per cubic foot are reduced to less than 0.5 in less than two minutes of filtering.

The Lutheran General Hospital of Park Ridge, Illinois, and Dr. Jack Van Elk report that their hyperbaric oxygen unit is proving to be beneficial not only for gas gangrene and other anaerobic infections, but also is a distinct advantage in the treatment of soft-tissue trauma and severely injured limbs where there is a question of local tissue viability. Indications are also found that myocardial damage may be prevented in acute myocardial infarcts.

The National Dairy Council's Project Weight Watch in 1968 will be highlighted in six full-page advertising messages in several nationally circulated medical journals and, as a service of the three Indiana dairy councils, in this journal. The ads will highlight sensible reducing diets, free health and diet educational materials for patients and will promote dairy foods as a component of adequate diets. This is the 25th year for the advertising campaign of dairy councils in medical and health magazines.

The National Aeronautics and Space Administration has developed a blood-pressure sensor so minute it may be passed through the lumen of an ordinary hypodermic needle and introduced by way of an artery into the left ventricle. It is less than 0.05 inches in diameter. It was developed and is being used now in research studies on laboratory animals, but may, of course, be used on human beings. It is expected that it will be especially suitable for babies.

Pfizer and Company will appeal a recent federal court conviction in an antitrust suit by the government charging conspiracy and monopoly in the production and distribution of antibiotics. The conviction, if upheld, makes Pfizer and co-defendants American Cyanamid and Bristol-Myers liable for suits demanding treble damages for purchasers of the antibiotics concerned. This is rough treatment for the discover and producer of one of the great antibiotics. It will be difficult to find anything worse to impose upon the outfit that discovers the universal cancer cure.

Health Insurance News reports that 1967 was a bad year for polio but a good year for the United States. Last year saw the smallest number of cases since the Public Health Service began counting cases in 1913. Forty-one cases (27 of them paralytic) were reported. Quite a change from the 57,879 cases reported in the biggest year (1952). The Health Insurance Institute points out that, while the record is wonderful, it presents no reason for complacency, but rather is a powerful argument for increased immunization efforts. If available vaccines had been used adequately, there should be no polio by now.

Drug costs are decreasing each year. The U. S. Department of Commerce reports that in 1966, 9.8% of medical care cost was due to drug expenditures. This is down from a percentage of 11.7 in 1957.

The University of Health Related Sciences is being formed by the Chicago Medical School to train a large variety of health workers who, it is hoped, will be able to perform many of the routine tasks now done by physicians, and thus, free the physicians for more important work. The eventual proportion will be 12 health workers to one physician. Chicago Medical School is also interested in training the physician in ethics, philosophy, comparative religion and similar subjects which will enable him, in the time spared to him by his helpers, to place his practice on a more personal basis and allow him to solve his patient's emotional problems while treating his physical ills.

The ISMA Grievance Committee Report for 1967 received additional exposure when its comments about "afterhours gripes" were given national attention in *Medical World News* **on December 1.** Our committee finds an increasing number of complainants who feel that the response to emergency calls on the part of answering service personnel, hospital personnel, doctors' office personnel, doctors' family members and occasionally on the part of the doctor himself is "vague, confusing, contradictory or rejectional" in effect.

Drunken driving is a recognized danger, but it is not generally known to what extent intoxication in the home contributes to accidental fatalities. *The Statistical Bulletin* of the Metropolitan Life Insurance Company reports that out of a total of 847 fatal home accidents in a two-year period, 137 involved alcohol. Accidental poisoning, falls, fires, gunshot wounds, suffocation by food in the trachea, drowning and excessive cold all caused death in sober victims, but seemingly in an excessive proportion of drinkers. Half of the acute poisonings occurred during alcohol intoxication. Seventy-five percent of the barbiturate deaths were associated with alcohol, an example of accentuation of effect. One-fourth of the deaths from fire due to smoking and all the deaths due to freezing were associated with acute intoxication. ◄

The Arthritis Foundation salutes the thousands of dedicated physicians who volunteer their services in the nation's fight against crippling arthritis.

The Arthritis Foundation is the sole national voluntary health agency committed to conquering the rheumatic diseases. It provides the means for dynamic partnership between physicians and laymen to marshal leadership and resources toward the solution of this major national health problem.

The Arthritis Foundation looks forward to rapid growth with increasing opportunity for physicians to participate in the arthritis movement. For further information about The Arthritis Foundation and its programs write to the Foundation chapter in your community or to the Medical Department, Box 2525, New York, N.Y. 10001.

Floyd B. Odlum
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President of the American Rheumatism Association Section

William E. Reynolds, M.D.
Medical Director

Let's be specific about Campbell's Soups... and *reducing diets*

There are more than 30 million people in America who are overweight. During the next year, you probably will see more than 1,000 of them in your own practice.

One good way to help these patients is to give them a reducing diet based on ordinary eating patterns.

Campbell has prepared a sensible plan for weight control based on ordinary eating patterns. The plan consists of a patient instruction booklet and a set of menus which provide approximately 1,200 calories daily. The menus are balanced to provide the minimum daily requirements of nutrients.

To obtain a supply for your office write to:
Campbell Soup Company, Box 265, Camden, N. J. 08101

Conventional Radiography

The restless duodenum makes radiographic diagnosis difficult, uncertain and often unproductive: Is this duodenum abnormal?

Hypotonic Duodenography

Pro-Banthīne-induced duodenal calm permits full anatomic appraisal: Same patient. Duodenal normality is now evident.

• in diagnosis

• in treatment

Pro-Banthine® brand of propantheline bromide

calms the gastrointestinal tract

For fifteen years Pro-Banthine has been the most widely used anticholinergic agent in disorders of gastrointestinal motility and gastric hypersecretion. More recently Pro-Banthine has reestablished its pharmacologic effectiveness in diagnostic procedures using intragastric fibroscopy and hypotonic roentgenography.

How the X-rays were taken

In the hypotonic duodenograph[1,2] reproduced above, the gastrointestinal tract was relaxed with Pro-Banthine. The duodenum was intubated. Pro-Banthine in a dose of 60 mg. intramuscularly was used to assure prompt aperistalsis and double-contrast visualization was achieved with ordinary barium and air.

The same pharmacologic efficiency has proved of pronounced value in such conditions as: *peptic ulcer, pylorospasm, biliary dyskinesia, functional hypermotility and irritable colon.*

Contraindications: Glaucoma or severe cardiac disease.

Precautions: Since varying degrees of urinary hesitancy may occur in elderly males with prostatic hypertrophy, this should be watched for in such patients until they have gained some experience with the drug. Although never reported, theoretically a curare-like action may occur with possible loss of voluntary muscle control. Such patients should receive prompt and continuing artificial respiration until the drug effect has been exhausted.

Side Effects: The more common side effects, in order of incidence, are xerostomia, mydriasis, hesitancy of urination and gastric fullness.

Dosage: The maximal tolerated dosage is usually the most effective. For most *adult* patients this will be four to six 15-mg. tablets daily in divided doses. In severe conditions as many as two tablets four to six times daily may be required. Pro-Banthine (brand of propantheline bromide) is supplied as tablets of 15 mg., as prolonged-acting tablets of 30 mg. and, for parenteral use, as serum-type vials of 30 mg. The parenteral dose should be adjusted to the patient's requirement and may be up to 30 mg. or more every six hours, intramuscularly or intravenously.

(1) Bilbao, M. K.; Frische, L. H.; Rösch, J., and Dotter, C. T.: Hypotonic Duodenography, Scientific Exhibit, Radiological Society of North America, Chicago, Nov. 27–Dec. 2, 1966.

(2) Bilbao, M. K.; Frische, L. H.; Dotter, C. T., and Rösch, J.: Hypotonic Duodenography, Radiology *89*:438-443 (Sept.) 1967.

SEARLE

Research in the Service of Medicine

on call...
Keflin®
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President's Page

Memo to all members of ISMA and to all county medical societies:

Item I: It is not too early to give serious thought to the preparation of resolutions to be presented to the October meeting of the ISMA House of Delegates. Last year only two resolutions had been filed at the headquarters office prior to the opening of the convention. May I urge you to comply with the regulation which states that all resolutions be filed forty five (45) days prior to the opening day of the annual convention. It simply is not fair to our membership if these resolutions are not prepared and circulated in plenty of time so that all members of ISMA have an opportunity to study them and instruct their delegates as to their wishes.

Item II: It is not too early to make plans to attend the October convention which will be held in Fort Wayne. The Commission on Convention Arrangements, with the wholehearted enthusiastic support of the members of the Allen County Medical Society, has already completed the scientific program. We hope and believe it will be one of the finest ever. *You should attend!* You should bring your wife!

Item III: You should be aware of the fact that ISMA officers, the Executive Committee, Council, and staff have been extremely active in studying in depth the provisions of PL 89-239, PL 89-749 and the recently released report from the National Advisory Commission on Health Manpower. As a result of these studies, you may be assured that Indiana will be among the leaders of all the states in planning to provide the delivery of highest quality of medical service to all the people and at the same time to perpetuate the free practice of medicine. You will be hearing much more about this subject in the near future.

Item IV: It is with pleasure and disappointment that I report to you that up to date slightly more than fifty percent (50%) of our members have paid their IMPAC and AMPAC dues. The pleasure is that this is the greatest percentage of our membership to date that has elected to support the political action arm of our state association. The disappointment lies in the fact that somehow, in spite of our efforts, we have failed to convince almost half of our membership of the vital necessity of supporting with our substance, our ideals and our most effective proven way of supporting them. I know you have heard this plea before but believe me it is more urgent and vital than ever to go all-out in support of this activity. Furthermore you should plan even greater support in the future!

G. O. Larson M.D.

Sustained circulatory, respirator
and cerebral stimulation for th

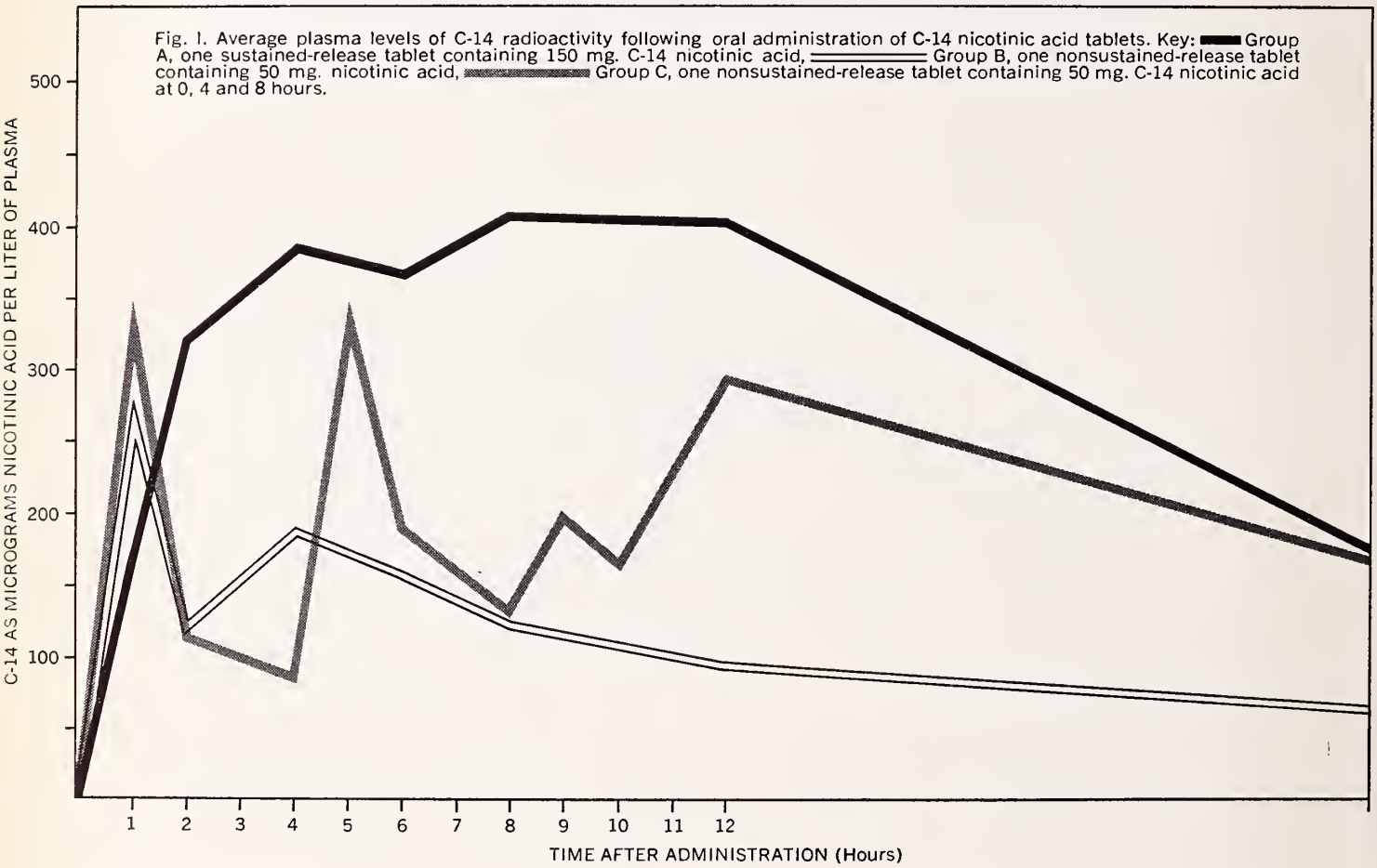


Fig. I. Average plasma levels of C-14 radioactivity following oral administration of C-14 nicotinic acid tablets. Key: Group A, one sustained-release tablet containing 150 mg. C-14 nicotinic acid, Group B, one nonsustained-release tablet containing 50 mg. nicotinic acid, Group C, one nonsustained-release tablet containing 50 mg. C-14 nicotinic acid at 0, 4 and 8 hours.

(fewer absent doses by absent-minded patients)

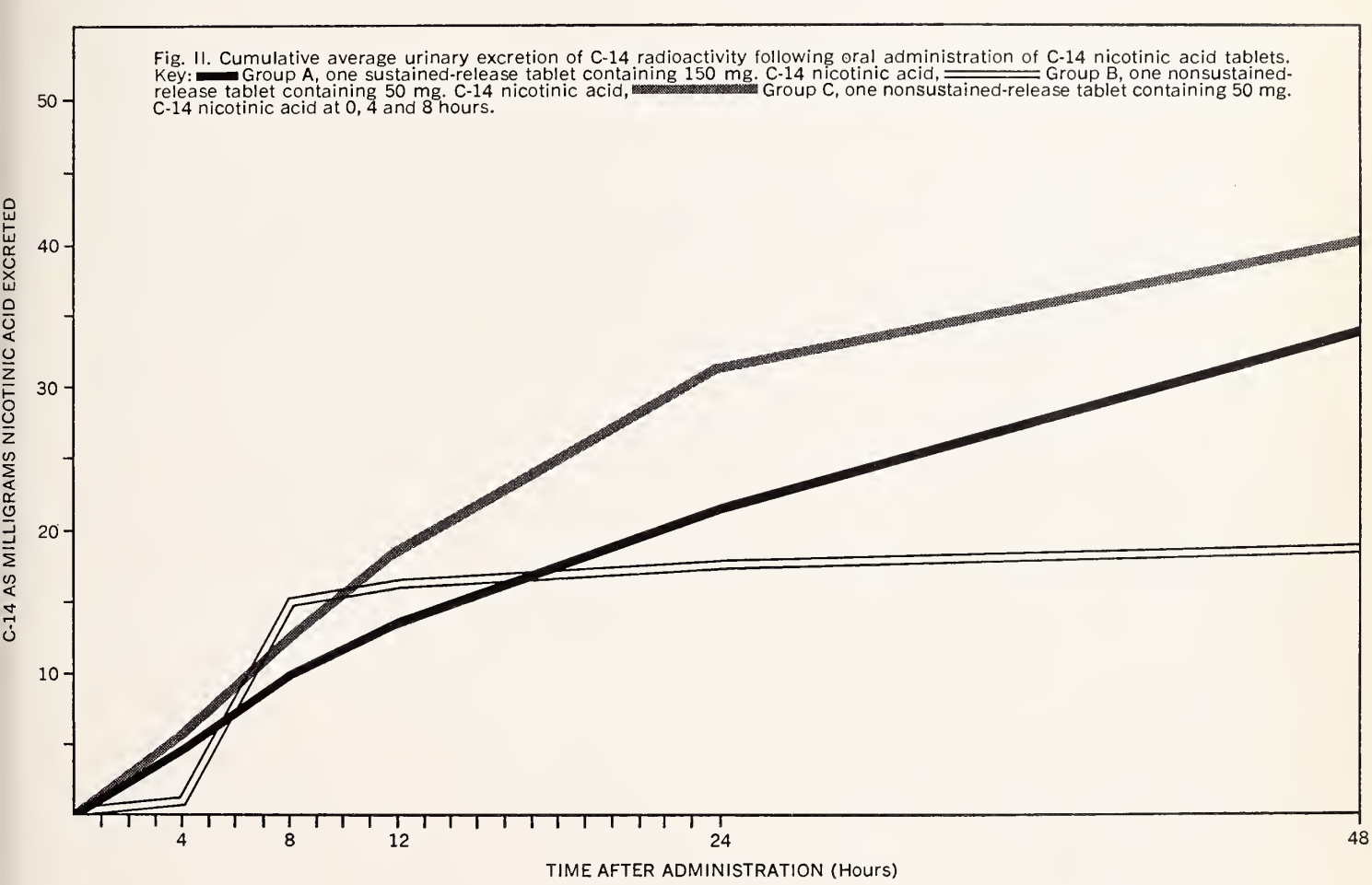
Human volunteer subjects were administered Geroniazol TT tablets with the nicotinic acid component made radioactive with C-14. Plasma and urine samples were analyzed. (See Figures I and II) The radioactive tracer study substantiated the previous clinical evidence that the release of nicotinic acid from the Geroniazol TT tablet produced a gradual rise in plasma levels to a plateau for a total of 12 hours and more.

Such proven sustained activity makes the management of geriatric patients much easier by minimizing the possibility of neglected doses through absent-mindedness or senile confusion. Therapy *can* be continuous on a daily dose of only one Geroniazol TT tablet every 12 hours.

The gradual release of nicotinic acid in Geroniazol TT will provide the well-known peripheral vasodilatation needed in patients with deficient circulation and with a minimum amount (if any) of "flushing." Also, cerebrovascular circulation is complemented by pentylenetetrazol, long-established as a cerebral and respiratory stimulant.

Geroniazol TT improves the typical, unfortunate, signs of senile confusion. Patients become more alert,

ged and debilitated



less confused and moody. Personal care, memory, emotional stability, social attention improve. Fatigue, apathy and irritability are reduced.

A prescription for 100 tablets of Geroniazol TT will permit your patients to enjoy the benefits of time-prolonged nicotinic acid/pentylenetetrazol therapy, at an economical price. Dosage is only one tablet every 12 hours.

Contraindications: There are no known contraindications.

Precautions: Exercise caution when treating patients with a low convulsive threshold.

Side Effects: Side effects are rarely encountered, however due to the vasodilatation effect of nicotinic acid, transitory mild nausea, flushing, tingling and pruritus are possible.

Dosage: One tablet every 12 hours.

Supplied: Prescribe bottles of 100 tablets, to take advantage of recent price reduction.

References: 1. Report by Nuclear Science & Engineering Corp., Pittsburgh, Pa., in files of Philips Roxane Laboratories. 2. Connolly, R.: W. Virginia Med. J. *56*:263 (Aug.) 1960. 3. Curran, T. R., and Phelps, D. K.: Am. Pract. & Digest Treat. *11*:617 (July) 1960.

"First with the Retro-Steroids"
PHILIPS ROXANE LABORATORIES
Division of Philips Roxane, Inc., Columbus, Ohio
A Subsidiary of Philips Electronics and
Pharmaceutical Industries Corp.

Geroniazol® TT
nicotinic acid 150 mg., pentylenetetrazol 300 mg.
Tempotrol® Time Controlled Tablet

The Woman's Auxiliary

REPORTS TO ISMA

Plans for our 24th annual House of Delegates are proceeding at a rapid pace. The physical arrangements for this meeting are under the able chairmanship of Mrs. William M. Matthews, Marion County auxiliary. We think we have an interesting program outlined for the ladies. We hope that your wife is planning to attend.

All of our activities will take place at the Marott Hotel, Indianapolis. The only business which will transpire Tuesday, April 23rd, will be an afternoon meeting of the finance and executive committees. Tuesday night, the Marion County auxiliary will serve as hostess to a "Japanese Garden Party." This will be for entertainment only—no speakers—no business.

Wednesday, April 24th, is the formal opening of the House of Delegates. Reports from state officers, state chairmen and county presidents will be given during the morning and afternoon sessions. The guest speaker for our Wednesday luncheon, sent to us from the national auxiliary, will be our regional vice-president, Mrs. John Dickie. Madison County is our hostess auxiliary. At the Wednesday night banquet, always a festive occasion, we will be entertained by the "Kappa Pickers" from the I.U. campus. The Johnson County auxiliary will plan for this lovely party.

Thursday, our final day, begins with a memorial breakfast (in memory of our deceased members). Hamilton County auxiliary serves as hostess.

The general session continues throughout the morning when we hear reports of the finance and nominating committees, followed by the election of officers.

The Hendricks County auxiliary is planning the "Installation Luncheon." Following the installation of officers, Mrs. S. Bruce Kephart, the incoming president, will deliver her inaugural address.

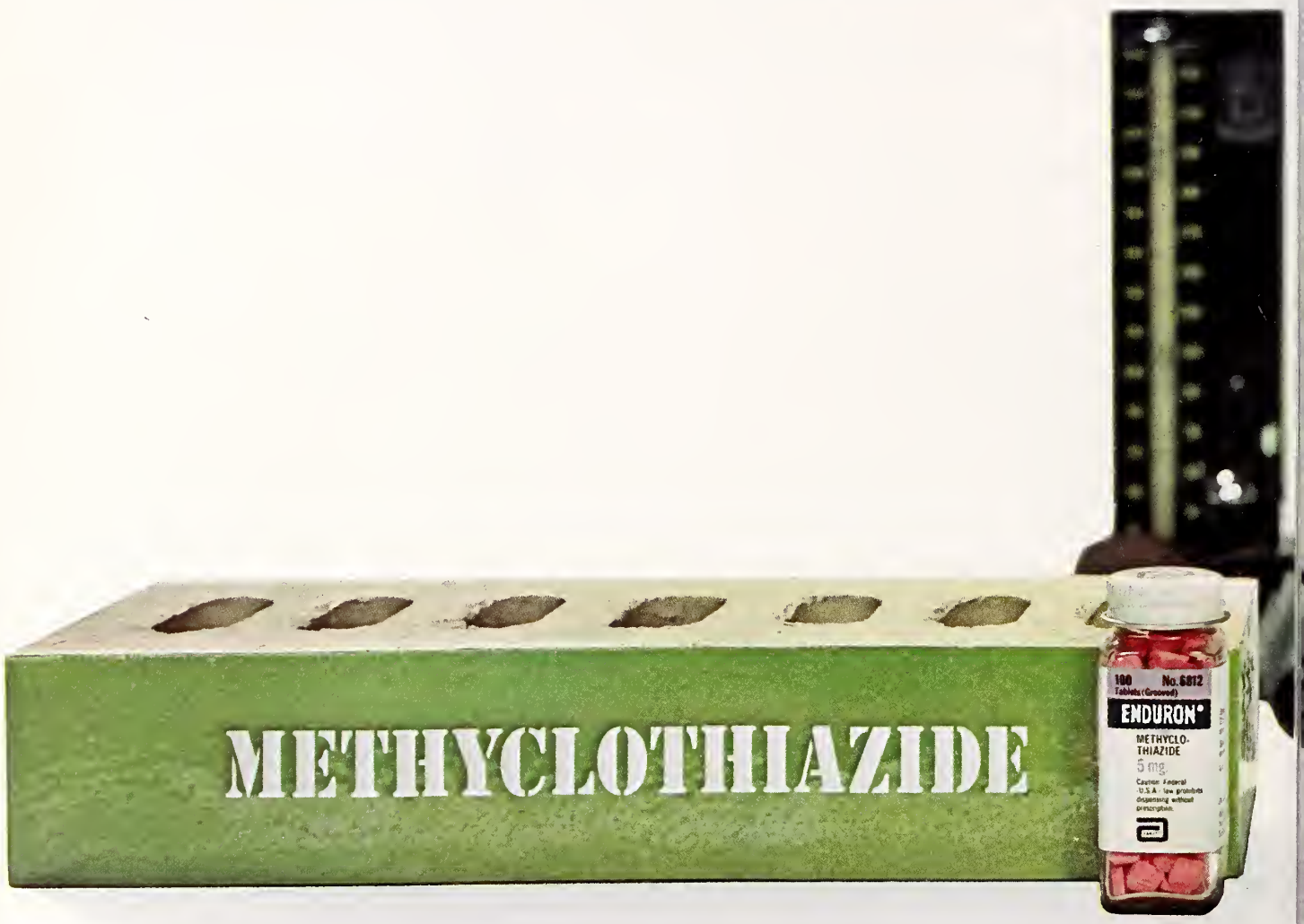
I am certainly appreciative of all the ladies who are working so hard to make this a successful meeting.

Roberta P. Deever

Abbott Antihypertensive Building Blocks

A simplified approach to the practical management of hypertension

Enduron: (methyclothiazide) A basic building block for mild hypertensives



Excellent day-long Na^+ output, yet easy on the K^+

Enduron provides an excellent starting therapy. Your patient's sodium excretion is greatly enhanced. Yet potassium loss is low.

The therapeutic action is smooth, and persists for a full 24 hours. With Enduron you can prescribe convenient once-a-day dosage without skimping your patients on day-long thiazide effectiveness.

Of course, as with all thiazides, supplemental dietary potassium should also be considered.

Use Enduron as a basic therapy in patients with mild to moderate hypertension. A single 5-mg. tablet each day is ample in most cases.

Once a day, every day

ENDURON®

METHYCLOTHIAZIDE

See Brief Summary on final page of advertisement

Enduronyl: Its deserpidine component adds response in moderate hypertension

Less frequent rauwolfia side effects than with reserpine

When you wish to build further response, consider shifting to Enduronyl.

Enduronyl adds a building block of *deserpidine*. This is a purified rauwolfia alkaloid available only from Abbott. It adds good antihypertensive and tranquilizing activity. Yet its incidence of untoward effects, particularly lethargy and depression, is lower than with reserpine.

Enduronyl is available plain or Forte. The latter provides its variation where most helpful, by doubling the deserpidine.

Use Enduronyl for patients throughout the broad range of mild to moderately severe hypertension.

Once a day, every day

ENDURONYL®

METHYCLOTHIAZIDE 5 mg. with DESERPIDINE 0.25 mg. or (FORTE) 0.5 mg.

MILD TO MODERATE TO SEVERE

See Brief Summary on final page of advertisement

801094

Eutron: A unique combination for handling moderate to severe cases

Affords almost uniform diastolic reduction in all body positions

Eutron lowers diastolic pressures nearly equally, whether your patient is standing up or lying down.

Thus, in clinical trials, average *standing* diastolic readings were reduced from 112 pre-treatment to 90 post-treatment; *sitting* from 115 to 95; and *recumbent* from 112 to 94.

Note that following Eutron, the diastolic reductions were nearly alike in all three body positions.

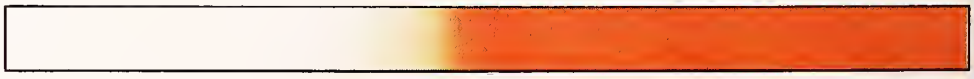
Use Eutron for managing your moderate to severe cases. Its building blocks enhance each other; hence lesser doses often suffice.

Once a day, every day

EUTRON™

PARGYLINE HYDROCHLORIDE 25 mg.
with METHYCLOTHIAZIDE 5 mg.

MILD TO MODERATE TO SEVERE



See Brief Summary on final page of advertisement

801094

ENDURON® | ENDURONYL®

METHYCLOTHIAZIDE

Each tablet contains Methyclothiazide 5 mg. with Deserpidine 0.25 mg. or 0.5 mg

Indications: Edema and mild to moderate hypertension (Enduron), and mild to moderately severe hypertension (Enduronyl). More potent agents, if added, can be given at reduced dosage.

Contraindications: Sensitivity to thiazides; severe renal disease (except nephrosis) or shutdown; severe hepatic disease or impending hepatic coma (hepatic coma due to hypokalemia has been reported in patients on thiazides). Do not use Enduronyl in severe mental depression, suicidal tendencies, active peptic ulcer, or ulcerative colitis.

Warnings: Consider possible sensitivity where there is history of allergy or asthma. If added potassium is indicated, dietary supplementation is recommended. Reserve enteric-coated potassium tablets for cautious use only when necessary, as they may induce serious or fatal small bowel lesions (stenosis with or without ulceration), cause obstruction, hemorrhage, and perforation often requiring surgery; discontinue them immediately if abdominal pain, distention, nausea, vomiting, or g.i. bleeding occurs. Neither Enduron nor Enduronyl contains added potassium.

Precautions: Use thiazides cautiously in severe renal dysfunction, impaired hepatic function or progressive liver disease; also in pregnancy (bone marrow depression, thrombocytopenia, and altered carbohydrate metabolism have been reported in certain newborn). In surgery, thiazides may reduce response to vasopressors, and increase response to tubocurarine. Antihypertensive response may be enhanced following sympathectomy. Watch for electrolyte imbalance (e.g., hyponatremia) in all patients. In hypokalemia (especially in digitalized patients) give supplemental potassium. In hypochloremic alkalosis, give supplemental chloride.

Use rauwolfias with caution in patients with history of peptic ulcer. Rauwolfias with anesthetics may produce hypotension and bradycardia. Discontinue Enduronyl two weeks before elective surgery. Consider vagal blocking agents during emergency surgery. In epilepsy, adjust anticonvulsant dosage. In electroshock, shorten stimulus strength and duration. In occasional patients with depressive tendencies, rauwolfias may precipitate severe mental depression that usually disappears when drug is stopped.

Adverse Reactions: Thiazide reaction include blood dyscrasias (thrombocytopenia with purpura, agranulocytosis, aplastic anemia); elevation of BUN, serum uric acid or blood sugar; anorexia, nausea, vomiting, diarrhea, headache, dizziness, paresthesia, weakness, skin rash, photosensitivity, jaundice, symtomatic gout, and pancreatitis. Cutaneous vasculitis in the elderly has been reported with other thiazides. Adverse effects with deserpidine are qualitatively similar to those with reserpine, but their incidence is lower. These include nasal stuffiness, abdominal cramps or diarrhea, nausea, headache, weight gain, reduced libido and potency, peptic ulcer aggravation, epistaxis, skin eruption, asthma in susceptible patients, electrolyte imbalance, excessive salivation, and a reversible Parkinson's syndrome. Excessive drowsiness, fatigue, weakness, and nightmares may signal mental depression. Thrombocytopenia, purpura, and a symptom manifested by dull sensorium, deafness, uveitis, glaucoma, and optic atrophy are rare allergic reactions to other rauwolfias. Hypotension from antihypertensive agents may precipitate angina attacks in susceptible individuals. Usually adverse reactions disappear when drug is withdrawn.

EUTRON™

Each tablet contains Pargyline Hydrochloride 25 mg. with Methyclothiazide 5 mg.

Indications: For treatment of patients with moderate to severe hypertension, especially those with severe diastolic hypertension. Not recommended for patients with mild or labile hypertension amendable to therapy with sedatives and/or thiazide diuretics alone. It is desirable to establish the dosage of Eutron by administering component drugs separately.

TM-TRADEMARK

Contraindications: Pheochromocytoma, advanced renal disease, increasing renal dysfunction, paranoid schizophrenia and hyperthyroidism. Hepatic coma has been reported as consequence of hypokalemia with thiazide therapy. Until further experience is gained not recommended for patients with malignant hypertension, children under 12, or pregnant patients.

Concomitant use of the following is contraindicated: other monoamine oxidase inhibitors; parenteral forms of reserpine or guanethidine; sympathomimetic drugs; foods high in tyramine such as cheese; imipramine and amitriptyline, or similar antidepressants; methyldopa. 2 week interval should separate therapy and use of these agents.

Methyclothiazide is contraindicated in patients with known sensitivity to thiazides.

Warnings: Pargyline hydrochloride is a monoamine oxidase inhibitor. Warn patients against eating cheese, and using alcohol, proprietary drugs or other medication without the knowledge of the physician. When indicated, alcohol, narcotics (meperidine should be avoided), antihistamines, barbiturates, chloral hydrate, and other hypnotics, sedatives, tranquilizers, or caffeine, may be used cautiously in reduced dosage. In emergency surgery ¼ to ⅕ the usual dose of narcotics, analgesics, and other premedications should be used avoiding parenteral administration where possible. Carefully adjust dose of anesthetics to response of patient. Withdraw pargyline two weeks before elective surgery.

Warn patients about the possibility of postural hypotension. Those with angina or coronary artery disease should not increase physical activity with an improvement in well being. Pargyline may lower blood sugar.

Avoid use of enteric-coated potassium tablets, as these may induce serious or fatal small-bowel lesions consisting of stenosis with or without ulceration. These small-bowel lesions have caused obstruction, hemorrhage and perforation frequently requiring surgery. Medication should be discontinued immediately if abdominal pain, distension, nausea, vomiting or GI bleeding occurs. These products contain no added potassium salts and if added potassium intake is desired, dietary supplementation is recommended. Coated potassium tablets should be reserved for cautious use when adequate dietary supplementation is impractical. In patients with a history of allergy or asthma the possibility of sensitivity reactions should be considered.

Precautions: Measure blood pressure while patient is standing to determine antihypertensive effect. Use with caution in hyperactive or hyperexcitable persons. Such persons may show increased restlessness and agitation. Withdraw drug during acute febrile illness. Watch patients with impaired renal function for increasing drug effects or elevation of BUN and other evidence of progressive renal failure; withdraw drug if such alterations persist and progress. Use with caution in patients with liver disease. As with all new drugs, complete blood counts, urinalyses, and liver function tests should be performed periodically. With prolonged therapy, examine patients for change in color perception, visual fields and fundi. Also reported have been: blood dyscrasias including thrombocytopenia with purpura, agranulocytosis and aplastic anemia; elevations of BUN, serum uric acid, or blood sugar. Symptomatic gout may be induced. In surgical patients thiazides may reduce response to vasopressors and increase response to tubocurarine.

Adverse Reactions: Pargyline may be associated with orthostatic hypotension. Mild constipation, slight edema, dry mouth, sweating, increased appetite, arthralgia, nausea and vomiting, headache, insomnia, difficulty in micturition, nightmares, impotence, delayed ejaculation, rash, and purpura have been encountered with pargyline. Hyperexcitability, increased neuromuscular activity (muscle twitching) and other extrapyramidal symptoms have been reported in a few patients with reduced cardiac reserve.

During intensive or prolonged therapy, guard against hypochloremic alkalosis and hypokalemia (especially the latter if patient is on digitalis). Observe all patients for signs of hyponatremia ("low salt" syndrome).

Reported thiazide reactions also include anorexia, nausea, vomiting, diarrhea, headache, dizziness, paresthesia, weakness, skin rash, photosensitivity, jaundice, and pancreatitis. Nocturia has been observed with the combination.

801438

ABBOTT

Psychiatric Evidence Needed in Social Security Disability Evaluation*

KURT NUSSBAUM, M.D.**
ABRAHAM M. SCHNEIDMUHL, M.D.***
JOHN W. SHAFFER, Ph.D.†
Baltimore, Md.

THE assessment of psychiatric disability is becoming a more and more complex process. While it may be comparatively easy to assign a numerical evaluation to the loss of an arm or leg, many intangible factors enter into the consideration of impairment due to psychiatric causes. In a wider context, this applies not only to psychiatric illness, but also to emotional problems connected with other disabilities. The question of motivation and personality make-up is also involved. Psychiatric evaluation might be helpful in determining the difference between two workers who have been temporarily removed from the labor market due to injury or illness, one of whom will return to work without difficulty, while the other, even though perhaps less seriously damaged from an objective-organic viewpoint, might find it most difficult, if not impossible, to do so.

Significant progress in evaluation of psychiatric disability has been made during the last decade. The first major breakthrough was the realization that while psychiatrists may disagree sharply regarding diagnosis and even question its necessity,[1] there is remarkable consensus in delineation of significant personality traits and in the mental status description.[2] Much has been accomplished by research psychiatrists and psychologists in the area of quantification of the manifestations of psychiatric illness.[3] The medical consultant staff of the Social Security Administration is participating in developing instruments which, hopefully, will make it possible to correlate clinical findings with ability (or inability) to work.

Totally Impaired?

The Social Security Administration entered into the disability field in 1954 through an act of Congress. While other organizations dealing with psychiatric disability, such as the Veterans Administration, Workmen's Compensation and insurance companies, require evaluation by percentages of partially disturbed or lost bodily function, the Social Security Administration deals with an either/or question, i.e., is the applicant totally impaired for a period of time or not? This is one of the reasons why the recently published AMA guides on rating mental impairment[4] do not lend themselves for use by our program.

Under the definition of disability used by the Bureau of Disability Insurance of the Social Security Administration, an applicant must show "inability to engage in *any* substantial gainful activity by reason of any medically determinable physical or mental impairment which . . . has lasted or can be expected to last for a continuous period of not less than 12 months." A keyword here is "medically determinable."

While an applicant may allege disability by virtue of complaints, this allegation must be supported by reliable observations which demonstrate mental or psychological changes. For this reason, it is most important that an examining psychiatrist furnish a description of the applicant by means of detailed mental status examination to enable the adjudicative team, consisting of a psychiatric consultant and lay adjudicators at the state agency level, to make a disability decision based on objective signs.

Impairment vs. Disability

At this point, it may be well to define our concept of "impairment" and "disability." Impairment is considered a purely medically determinable situation with anatomical, physiological or psychological abnormality. Disability, on the other hand, is fashioned by administrative and legal requirements in addition to impairment. It follows, therefore, that the evaluation of *disability* requires the combined competence of the medical, legal and administrative staffs. In the light of this distinction between impairment and disability, it is suggested that the physicians submitting reports on applicants for disability benefits furnish a detailed description of the impairment. They need not express an opinion on disability. They may address themselves to the kinds of activities a man can or cannot perform. Opinion evidence representing the clinical impression of the consultant is helpful only to the extent it is supported by reliable, impairment-relevant observations.

The Social Security Administration

* Presented at the 118th annual convention of the Indiana State Medical Association, Indianapolis, Indiana, October 10, 1967.

** Chief Consultant in Psychiatry and Neurology, Bureau of Disability Insurance, Social Security Administration, P. O. Box 1075, Baltimore, Maryland 21203.

*** Consultant in Psychiatry.

† Consultant in Medical Psychology.

receives approximately 75,000 applications for psychiatric disability a year. Thus, our organization has at its disposal a tremendous pool of information and is in a position to do research directed towards developing and refining clear-cut, reliable and hopefully valid criteria for the type of psychiatric impairments which prevent work-related activity. The psychiatric consultant who sees claimants for disability is contributing to the refinement of psychiatric disability decision-making by furnishing descriptive and complete reports including, where necessary, reliable tests of intellectual functioning and personality structure, rather than merely recording the patient's complaints.

The objective of our discussion today is to present a guide to those psychiatrists who will have the occasion of examining disability applicants. A brief description of the decision-making process will clarify further the evidentiary needs that psychiatric consultants may be called upon to fill.

Making Decisions

Applicants for disability benefits submit evidence of disability to their local state agencies where decisions are made. These are subsequently reviewed by the professional staff of the Bureau of Disability Insurance (BDI) at the central office in Baltimore. Only one of two ultimate decisions is possible, *viz.*, to allow or to deny the applicant's claim according to the existing provisions of the law. Denials may subsequently be appealed if the applicant believes the decision to be incorrect.

The decision to allow or to deny is made on the basis of medical and administrative evidence in the applicant's file. This evidence includes a medical description of his impairment. It includes an occupational history to determine work demands. It includes his earnings record and social security tax contributions. Medical evidence of impairment (including laboratory and psychological examination findings, where relevant) may be submitted by the applicant's own physician(s) and may be supplemented by independent medical and psychological examinations obtained by the Social Security Administration through the state agencies.

In either reaching or reviewing a decision, the medical consultant, both at the state agency level and at the Medical Consultant Staff, Bureau of Disability Insurance, is guided by sets of criteria (the "listings") which have been evolved over a period of years with the aid of a medical advisory committee composed of nationally known representatives of the several medical specialties. The purpose of these listings is to insure that the adjudicative decisions reached are uniform for the nation, equitable and reliable. If the nature of the applicant's impairment is such that it meets in severity the conditions regarded as disabling in the listings, and he is insured and is not engaging in work activity, the applicant is considered to be under a disability and is entitled to the benefits provided by law. If the impairment does not meet or equal the listings, the applicant is evaluated individually by relating his remaining mental and physical capacities to job demands. If it is felt that there is insufficient evidence on which to base a decision, every effort is made to secure further relevant information.

Since their inception, the above procedures have been subjected to a continuing process of refinement and modification and have, we believe, served remarkably well in carrying out the mission of the Bureau of Disability Insurance. Nevertheless, it is in keeping with the bureau's tradition of constantly upgrading operating procedures to seek to improve the validity of decisions.

The listings for psychiatric impairments reflect the legal definition of disability under the program, i.e., that the medically determinable mental impairment which has lasted or can be expected to last for a continuous period of 12 months or longer, has resulted in inability to engage in any substantial gainful activity (SGA). Thus, acute episodes (delirium tremens, depression, etc.) although quite severe and temporarily incapacitating, may not be a basis for an allowance since they do not fulfill the criterion of duration. Similarly, chronic psychiatric disorders without evidence of marked restriction of daily activities, constriction of interest and/or deterioration in personal habits would not meet the criterion of severity, as reflected in the listings.

Personality Disorders

The personality disorders pose a problem by themselves. The question of whether they constitute illness, or whether they produce significant mental impairment, is subject to varying opinions among psychiatrists. The diagnostic manual of the American Psychiatric Association defines them as life-long patterns of inadequate or socially unacceptable behavior without any apparent motivation for changing this behavior or attitude. For the purpose of disability evaluation, we have found a psychodynamic differentiation of behavior disorders from functional psychoses or psychoneuroses helpful. In the latter, strong intrapsychic conflicts generate uncomfortable feelings (anxiety). The symptoms reflect the patient's attempt to deal with these intrapsychic conflicts of an uncomfortable or destructive (ego-dystonic) nature. On the other hand, in personality disorders, the symptoms are primarily an expression of conflict with the environment. The patient will, therefore, make attempts (not infrequently successful) to manipulate the environment to conform with his self-centered, ego-syntonic comfort; these patients generally see no need for treatment (change of their own behavior or attitudes) as long as they are able to avoid conflicts with the environment through active

or passive manipulation. Personality disorders do not fulfill the severity requirement of the social security disability regulations but may be a contributing factor in combination with other medical or psychiatric impairments. A good example is a case of alcoholism with superimposed chronic encephalopathy or cirrhosis.

In cases of confinement because of the commission of a crime rather than for an impairment, or hospitalization because of personality disorder, determination of the ability to engage in substantial gainful activity is based on the impairment revealed by the clinical findings rather than by the fact of hospitalization. Hospitalization, *per se*, is not a decisive factor in determining any case of psychiatric impairment where the confinement is not primarily due to persistent severity of symptoms. For this reason, a statement from the attending psychiatrist explaining the wage-earner's continued hospitalization is less cogent than a description of his daily activities prior to and during hospitalization.

Criteria have been set up for those applicants whose impairment is limited to intellectual functioning. These are based on examination with standardized tests, such as the Wechsler Adult Intelligence Scale (WAIS). It is preferred that the examining psychiatrist as well as the psychiatrists at the state agency and central office levels be provided with detailed reports containing subtest scores, and wherever possible with a copy of the actual test protocols, so that the test findings can be amalgamated into impairment description and ultimately into the psychiatric decision-making process.

Psychological tests may contribute to a psychiatric disability decision in a considerable number of other cases, not only in those of mental retardation. They may give valuable information on organic brain disease, or regression in ability to function due to non-organic causes. Projective tests, like the Rorschach or the Thematic Apperception Test (TAT), are of limited usefulness in defining capacity. They are more useful to the clinician for determining psychodynamics and therapeutic planning. Quantification of functional impairments by means of projective devices has not reached the point of practical applicability in adjudication. Our need is for quantifiable data.

Ability to Function

In the vast majority of cases, the issue of disability is decided on the basis of medical impairment alone. From the clinical findings, an inference is made whether certain listed criteria of impairment are met or equalled in severity. In the psychiatric area, these criteria are based upon the applicant's effective intelligence, affective status, reality contact, and culturally deviant behavior or personality traits, all of which have been found to be of significance in adaptation to a work situation. Furthermore, an onset date which must bear some relationship to the onset of the medically determinable impairment and to cessation of work activity is determined. In those cases which do not meet or equal the listings of impairment, remaining functional capacity is assessed.[5] This will explain why the ability of a claimant to function, as reflected by the level of his effective intelligence, affective status, reality contact, and behavior or personality traits, is of greater importance to the decision maker than the diagnosis. Furthermore, experience has shown that a diagnosis is frequently carried long after disturbances in these four areas have abated and functional ability has returned. The psychiatric consultant will facilitate the determination of disability if he describes, and illustrates factually, the applicant's remaining psychopathology.

In conclusion, we wish to state that the requirements for reliable psychiatric evidence is based on several needs:

1. To permit the evaluation of the claimant's functional ability to work (cope with a work situation), by means of unbiased, reliable data, thus resulting in equitable and just decisions in all cases, regardless of the geographic location or cultural and socio-economic status of the claimant.

2. To extend our present knowledge of objective criteria of functional impairment, and to improve the correlation of clinical findings with ability or inability to work.

3. Ultimately, to simplify psychiatric disability decision-making with the aid of rating instruments based on factual clinical data.

Your reaction to our evaluation concepts would be most helpful. This would form the basis for a cooperative effort between our agency and professional experts to serve an urgent need for society.

Summary

Disability decisions under Social Security law are made on objective signs, in order to fulfill the requirements of severity and duration. The theory and practice of decision-making for applicants applying for Social Security disability benefits on the basis of psychiatric illness is discussed.

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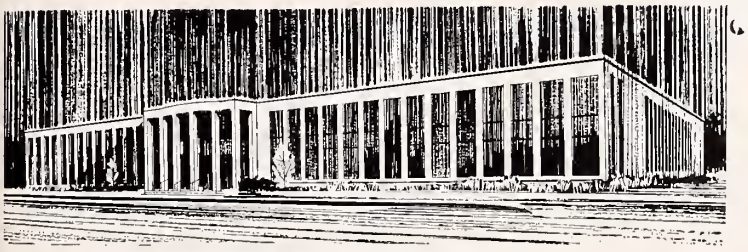

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Gleaned from the British Medical Journal

JACK W. HICKMAN, M.D.
Indianapolis

Women Often have Non-infectious Pyuria after Surgery

In order to recognize disease states, it is always essential to be aware of normal variance in order not to be mislead. The work reported by Lindsay et al.,[1] is, therefore, of particular importance. These investigators found that a quite high (61%) percentage of females developed a high excretion of white blood cells in their urine following surgical procedures. These were not urologic surgical procedures, nor did all the females have a history of past urinary tract infections and/or catheterizations. Only 11% of the males studied showed a similar increase in urinary white blood cells. In some cases there was an accompanying bacteriuria but this was not found in the majority of instances. It seems unlikely that these findings can be attributed to "smoldering" asymptomatic urinary tract infections that become manifest only with the stress of surgery. It appears more reasonable that the pyuria is a non-specific manifestation that should not be regarded per se as an indication for antibacterial therapy.

Digital Ischemia Prompts Search for Occult Malignancy

Digital ischemia associated with impending or frank gangrene is usually thought to be associated with vasospastic disorders, such as Raynaud's disease or with an obliterative process, and therapy is concentrated toward the involved area. A more systematic search is carried out in some patients with thromboph'ebitis because of the known association with concealed malignancies in these patients. Hawley et al.,[2] however, reports on six patients who developed digital ischemia and were subsequently found to have an associated maligancy. The prognosis for survival was quite poor in this group; all patients having died within 18 months from the onset of the ischemic changes. This report should alert us to another group of patients who require full diagnostic evaluation for malignancy.

Steatorrhea Associated with Psoriasis

One must question the assertion "Steatorrhea is common in patients with psoriasis. . . ." that appears in an article by Shuster, Watson and Marks.[3] Clinically at least, this does not appear to be "common", however, as these authors point out, it can occur as a manifestation of psoriasis. Fecal fat determinations were found to be elevated in 15 of 26 psoriatic patients reported in this series. The patients who had the most generalized skin involvement were those with the highest fecal fat excretion. There was no correlation between fecal fat and age, sex, total duration of psoriasis or length of the most recent skin exacerbation. Jejunal biopsy was done in these patients which revealed partial villous atrophy in 12 instances. Even if not manifested frequently, clinically, it is well to keep this association involvement in mind as a significant complication in those patients with widespread psoriatic involvement.

One Hundred Years of Gallbladder Surgery

Hoosier physicians can take particular pride in an editorial comment regarding gallbladder surgery in that the writer correctly credits Dr. Julian S. Bobbs of Indianapolis with performing the first cholecystectomy 100 years ago.[4] The article reviews current thinking regarding gallbladder disease and mentions what seems to be majority opinions in some controversial areas of this subject. It is their feeling that the potential complications from gallstones are great enough to warrant cholecystectomy for asymptomatic, incidentally discovered gallstones in otherwise healthy patients. They feel that generally non-operative management is indicated for acute cholecystitis with elective cholecystectomy to follow some months later. The only indications for early surgery are listed as being able to do the procedure within the first 48 hours of an attack by an experienced surgeon who has the facilities available for operative cholangiography. The other obvious indication for early surgery is perforation of the gallbladder.

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4. Operations on the Gall Bladder, *Brit. Med. J.* 3:811, No. 5569. ◄

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News from Indiana University School of Medicine

A unique clinical fellowship in orthopaedic surgery for senior medical students has been established at the Indiana University School of Medicine by the Zimmer Manufacturing Company of Warsaw, Indiana.

The course has been developed to give a comprehensive exposure of the subject to the student who is interested in disorders in the musculoskeletal system during his "off quarter" in the senior year. It has been arranged by and will be given under the guidance of Dr. Thomas Horwitz, Associate Professor of Orthopaedics.

Original purpose was to establish a pilot program from which to pattern an elective course in orthopaedic surgery for the senior student in the proposed reorganization of the medical school curriculum. However, as it has developed, Dr. Horwitz said, the program seems suited to be a permanent discipline in undergraduate training for the more sophisticated senior student with a special interest in the field, and to serve as a bridge to postgraduate training.

The fellowships will be open to the best qualified applicants from medical schools throughout the country. The course is being set up for 10 weeks to correspond with the off quarter period. The student-fellow will spend time on the orthopaedic services of the Riley, Long, Veterans Administration and General Hospitals, a period of preceptorship with an orthopaedic surgeon in private practice, a period in the research facility of the department, and he will audit some of the instructional activities of the orthopaedic resident program.

The program will be of value to those interested in entering general practice who desire a broader application of orthopaedics in their practice, to those interested in a surgical career and desirous of fortifying their knowledge of the specialties, and particularly to students specifically oriented toward the field of orthopaedics. The department also hopes to interest students who are considering full-time and part-time careers in teaching and research.

The Zimmer Manufacturing Company, which is one of the foremost developers and fabricators of orthopaedic appliances, has awarded funds for four fellowships for the first year and has expressed an interest in continuing the sponsorship. Stipend for each student-fellow will be $300 per month. ◄

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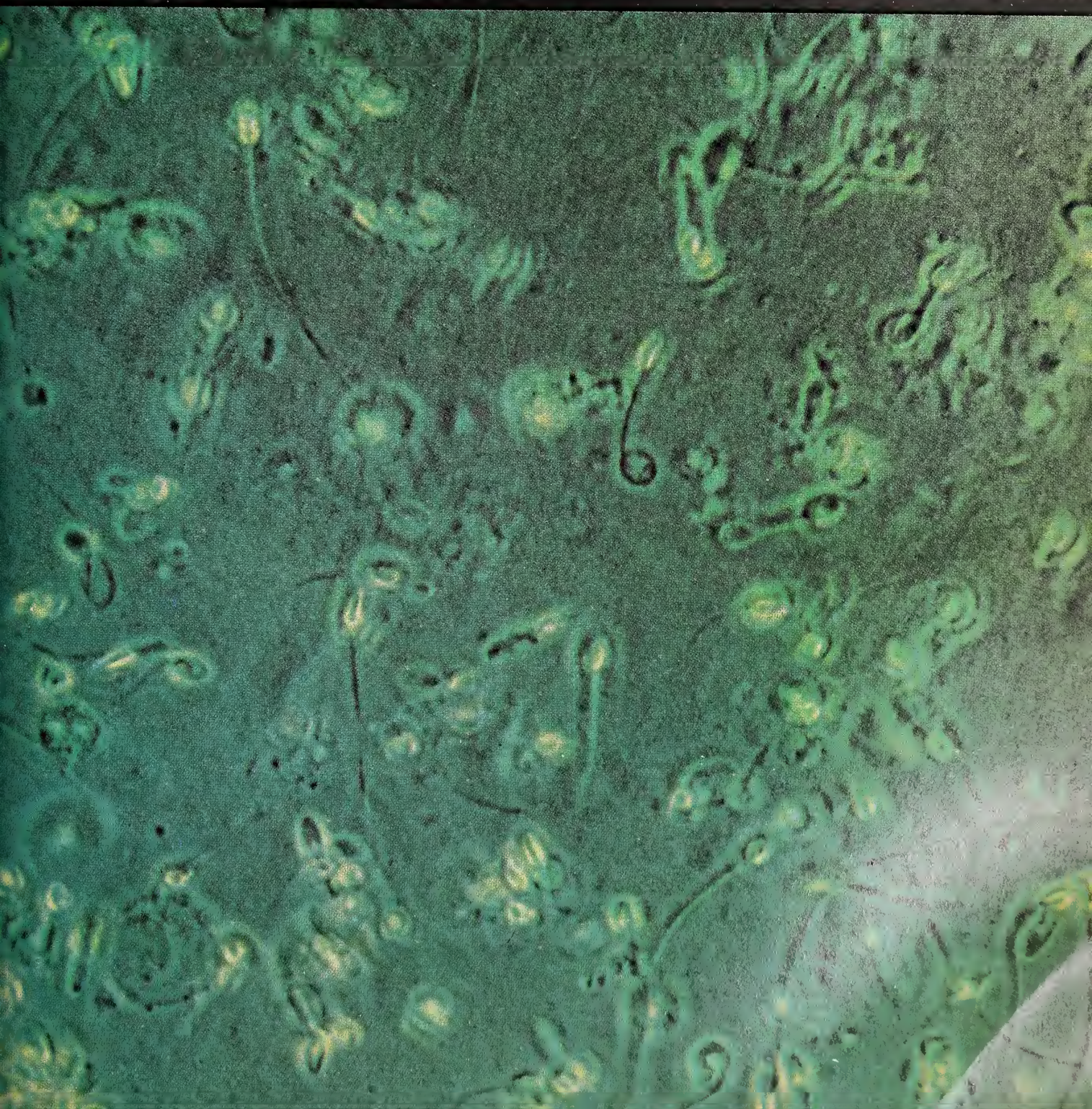
(norethindrone 1mg. c̄ mestranol 0.05mg.)

Turn page for contraindications, precautions and side effect



Reduction of oral contraceptive dosage to the lowest effective levels is a well-accepted principle of conservative medical practice. In keeping with this view, Norinyl is now also available as Norinyl-1, containing exactly one half the previous dosage of norethindrone and mestranol. Clinical experience has established that effective fertility control can be achieved with the same degree of reliability and safety with new Norinyl-1 when taken as directed.

What about switching patients from higher dosage forms?

In transferring patients to low-dose Norinyl-1 from higher-dosage oral contraceptives, some breakthrough bleeding may occur in the early cycles. In the majority of cases the bleeding episode is mild and self-limited. The long-term advantages of the lower dosage form should be weighed against the inconvenience of possible breakthrough bleeding in the individual patient.

Contraindications: 1. Patients with thrombophlebitis or with a history of thrombophlebitis or pulmonary embolism. 2. Liver dysfunction or disease. 3. Patients with known or suspected carcinoma of the breast or genital organs. 4. Undiagnosed vaginal bleeding.

Warnings: 1. Discontinue medication pending examination if there is sudden partial or complete loss of vision or if there is a sudden onset of proptosis, diplopia or migraine. If examination reveals papilledema or retinal vascular lesions, medication should be withdrawn. 2. Since the safety of NORINYL-1 (norethindrone 1 mg. with mestranol 0.05 mg.) in pregnancy has not been demonstrated, it is recommended that for any patient who has missed two consecutive periods, pregnancy should be ruled out before continuing the contraceptive regimen. If the patient has not adhered to the prescribed schedule, the possibility of pregnancy should be considered at the time of the first missed period. 3. Detectable amounts of the active ingredients in oral contraceptives have been identified in the milk of mothers receiving these drugs. The significance of this dose to the infant has not been determined.

Precautions: 1. The pretreatment physical examination should include special reference to breast and pelvic organs, as well as a Papanicolaou smear. 2. Endocrine and possibly liver function tests may be affected by treatment with NORINYL-1. Therefore, if such tests are abnormal in a patient taking NORINYL-1 it is recommended that they be repeated after the drug has been withdrawn for two months. 3. Under the influence of estrogen-progestogen preparations, preexisting uterine fibromyomata may increase in size. 4. Because these agents may cause some degree of fluid retention, conditions that may be influenced by this factor, such as epilepsy, migraine, asthma, cardiac or renal dysfunction, require careful observation. 5. NORINYL-1 should be used with caution in patients with a history of cerebrovascular accident. 6. In relation to breakthrough bleeding, and as in all cases of irregular bleeding *per vaginam*, nonfunctional causes should be borne in mind. In cases of undiagnosed vaginal bleeding, adequate diagnostic measures are indicated. 7. Patients with a history of psychic depression should be carefully observed and the drug discontinued if the depression recurs to a serious degree. 8. Any possible influence of prolonged NORINYL-1 therapy on pituitary, ovarian, adrenal, hepatic or uterine function awaits further study. 9. A decrease in glucose tolerance has been observed in a small percentage of patients on oral contraceptives. The mechanism of this decrease is obscure. For this reason, diabetic patients should be carefully observed while receiving NORINYL-1 therapy. 10. Because of the occasional occurrence of thrombophlebitis and pulmonary embolism in patients taking oral contraceptives, the physician should be alert to the earliest manifestations of the disease. 11. Because of the effects of estrogens on epiphyseal closure, NORINYL-1 should be used judiciously in young patients in whom bone growth is not complete. 12. The age of the patient constitutes no absolute limiting factor, although treatment with NORINYL-1 may mask the onset of the climacteric. 13. The pathologist should be advised of NORINYL-1 therapy when relevant specimens are submitted.

Side effects observed in patients receiving oral contraceptives: The following adverse reactions have been observed in patients receiving oral contraceptives: nausea, vomiting, gastrointestinal symptoms (such as abdominal cramps and bloating), breakthrough bleeding, spotting, change in menstrual flow, amenorrhea, edema, chloasma or melasma, breast changes (tenderness, enlargement and secretion), change in weight (increase or decrease), changes in cervical erosion and cervical secretions, suppression of lactation when given immediately postpartum, cholestatic jaundice, migraine, rash (allergic), rise in blood pressure in susceptible individuals, mental depression.

Although the following side effects have been reported in users of oral contraceptives, no cause and effect relationship has been established: anovulation post-treatment, premenstrual-like syndrome, changes in libido, changes in appetite, cystitis-like syndrome, headache, nervousness, dizziness, fatigue, backache, hirsutism, loss of scalp hair, erythema multiforme, erythema nodosum, hemorrhagic eruption, itching.

The following occurrences have been observed in users of oral contraceptives (a cause and effect relationship has been neither established nor disproved): thrombophlebitis, pulmonary embolism, neuro-ocular lesions.

The following laboratory results may be altered by the use of oral contraceptives: increased sulfobromophthalein and other hepatic function tests, coagulation tests (increase in prothrombin, Factors VII, VIII, IX and X), thyroid function (increase in PBI and butanol extractable protein-bound iodine and decrease in T^3 values), metyrapone test, pregnanediol determination.

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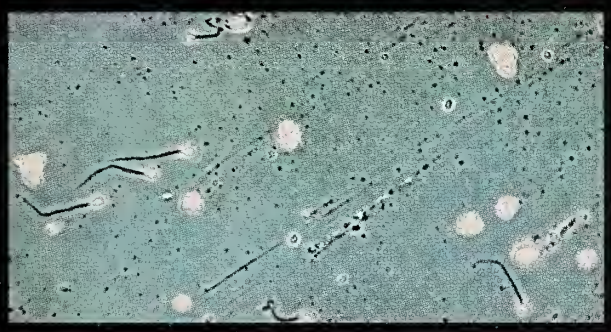
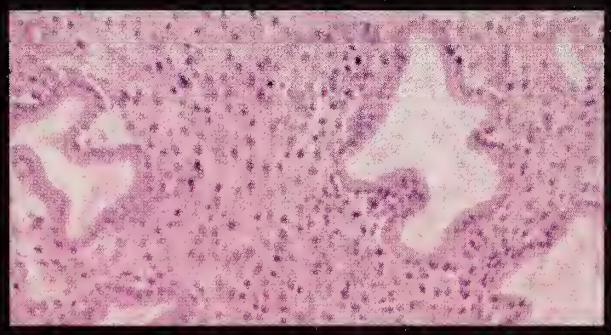
Untreated Patient

Cervical mucus at midcycle is usually thin and watery, with Spinnbarkeit (stretchability) of 15 to 20 cm.

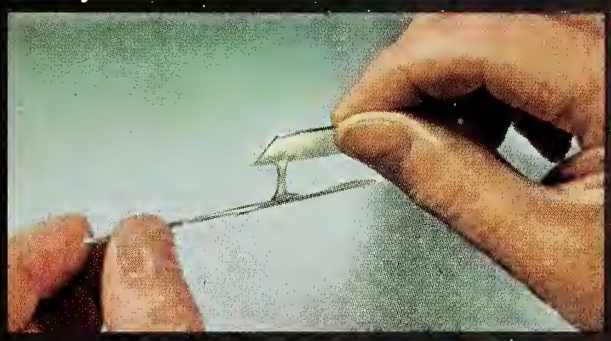


Spermatozoa appear healthy, active, freemoving.

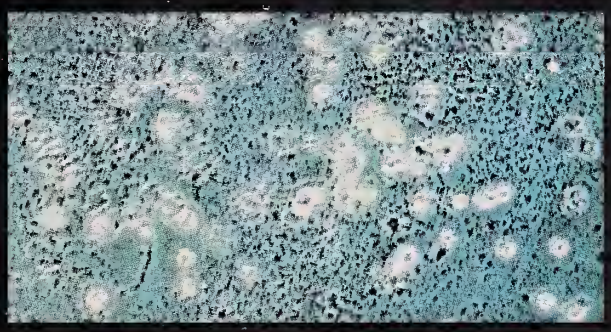


Endometrium of untreated patient is receptive to the fertilized ovum during secretory phase.

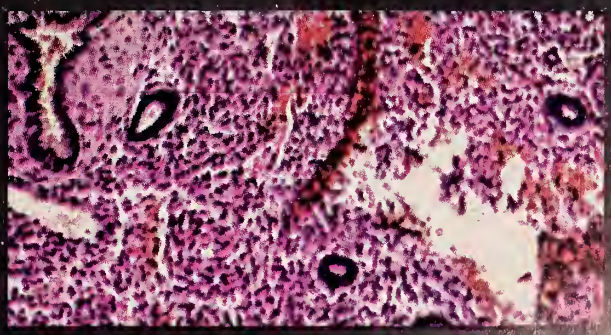
Norinyl-1 Patient



Cervical mucus at midcycle is scanty, viscous—with Spinnbarkeit of 1 cm. or less.



Immobile spermatozoa as they appear in cervical mucus taken from patient treated with Norinyl-1.



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(One of a series prepared by Blue Cross-Blue Shield)

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Also, on April 1, the amended Medicare law requires that hospital-based outpatient diagnostic services formerly provided under Part A of Medicare will be transferred into Part B of Medicare and will then be influenced by the $50 deductible. However, Blue Cross will expand its service to Medicare supplement members and fill the deductible and the 20% unpaid by Medicare. This will mean that, in most cases, such members will still get the same full service as they did before.

Another new benefit under Medicare, effective January 1, 1968, is the inclusion of non-routine podiatrist's services. Therefore, Blue Shield will supplement non-routine services of doctors of podiatry.

In addition, the recent legislation provides, effective January 1, 1968, an additional benefit for all Medicare beneficiaries of 60 lifetime reserve days of inpatient hospital care with a $20.00 daily coinsurance. Blue Cross will permit Medicare supplement members to utilize first the additional 30 days provided by the Medicare supplement membership and still retain 60 lifetime reserve days for some future use.

This increase in benefits with no increase in membership fees is one more example of the Blue Cross-Blue Shield program of providing the broadest possible benefits to all members at the lowest possible cost. ◄

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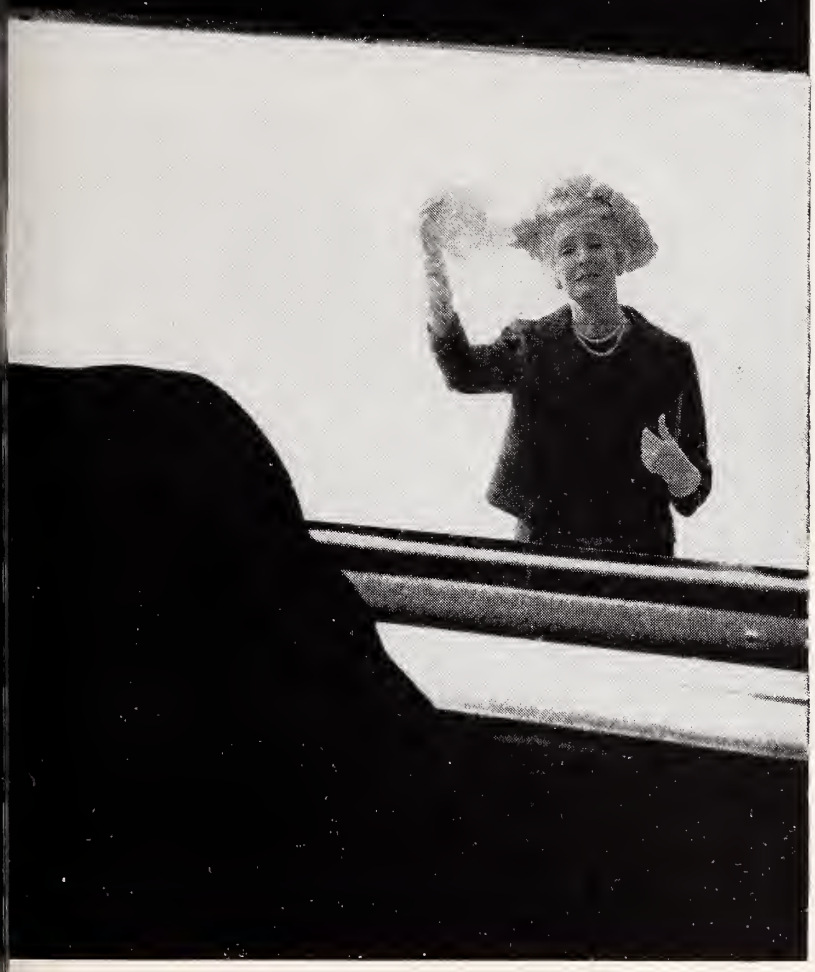
Indications: Tofrānil is recommended for the treatment of depressive states of diverse psychopathology.
Contraindications: The concomitant use of Tofrānil and monoamine oxidase inhibiting (M.A.O.I.) compounds is contraindicated. Hyperpyretic crises or severe convulsive seizures may occur. Potentiation of adverse effects can be serious or even fatal. An interval of at least 7 days after M.A.O.I. therapy has been discontinued should be allowed before Tofrānil may be substituted. Initial Tofrānil dosage should be low, increases should be gradual, and the patient's progress should be carefully observed.
Warning: Clinical reports have suggested that there may be a risk of teratogenesis associated with the use of this compound during the first trimester of pregnancy. Unless, in the opinion of the prescribing physician, the potential benefits outweigh the possible risks, Tofrānil should not be used during the first trimester of pregnancy.
Cardiovascular complications, including myocardial infarction and arrhythmias, have occasionally occurred in susceptible individuals. Patients with cardiovascular disease should be given the drug only under careful observation and in low dosage.
Precautions: Since suicide is always a possibility in severely depressed patients and one which may persist until significant remission occurs, such patients should be carefully supervised during early treatment with Tofrānil. Some severely depressed patients may also require hospitalization and/or concomitant electroconvulsive therapy.
Because of its anticholinergic effect, caution should be observed in prescribing Tofrānil for patients with increased intraocular pressure.
In rare instances, transient cardiac arrhythmias have occurred in hyperthyroid patients and in patients receiving thyroid medication when Tofrānil was added to the regimen.
Imipramine may block the pharmacologic activity of guanethidine and other related adrenergic neuron-blocking agents.
The drug is not recommended at the present time in patients under 12 years of age.
Adverse Reactions: Dryness of the mouth, tachycardia, constipation, disturbances of accommodation, sweating, dizziness, weight gain, urinary frequency or retention, nausea and vomiting, peripheral neuritis, mild parkinson-like syndrome, tremors, rare cases of falling in elderly patients, confusional states (with such symptoms as hallucinations and disorientation), activation of psychosis in schizophrenics and agitation (incl

When a milestone in life is marred by depression...



Often in the mind of the lonely, widowed, depression-prone individual, she's not gaining a daughter...she's losing a son. The occasion may be marred by such symptoms of depression as feelings of sadness, incapacity, helplessness and hopelessness.

In about 3 out of 4 cases, Tofrānil relieves symptoms of primary depression.

As maintenance therapy in primary depressive illness, it helps prevent relapse.

Although toxic reactions severe enough to require discontinuation of Tofrānil are uncommon, in patients with cardiovascular disease, thyroid disorders, increased intraocular pressure, or in those receiving anticholinergics (including antiparkinsonism agents), the special precautions listed in the Prescribing Information should be carefully observed. The use of Tofrānil in patients receiving M.A.O.I.'s is contraindicated.

hypomanic and manic episodes) ch may require dosage reduction /or addition of a tranquilizer or porary discontinuation of the drug, eptiform seizures, orthostatic otension and substantial blood ssure fall in hypertensive patients, ura, transient jaundice, bone mar- depression including agranulocy- s, sensitization and skin rash uding photosensitization, eosino- ia, and mild withdrawal symptoms sudden discontinuation after pro- ged treatment with high doses. asional hormonal effects (im- ence, decreased libido, and estro- ic effects) may be observed. pine-like effects may be more nounced (e.g. paralytic ileus) in ceptible patients and in those g anticholinergic agents (includ- antiparkinsonism drugs).
patient Adult Dosage: Initially, ng. daily, increased, if necessary, to 150 or 200 mg. Maintenance dosage may be lower, 50 to 150 mg. daily, if possible.
Geriatric and Adolescent Dosage: Initially, 30 or 40 mg. daily, which may be increased according to response and tolerance. It is usually unnecessary to exceed 100 mg. daily.
A lag in therapeutic response, lasting from a few days to a few weeks, should be expected. When dosage recommendations are already being followed, increasing the dosage does not normally shorten this latency period and may increase the incidence of adverse reactions.
Availability: Tofrānil: Round tablets of 25 and 50 mg.; triangular tablets of 10 mg. for geriatric and adolescent use; and ampuls, each containing 25 mg. in 2 cc. for I.M. administration.
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Medicine At Law

DECISIONS AND OPINIONS

Highlights of recent court actions pertaining to health and medicine from *The Citation* prepared by the Law Division of AMA.

Physician Not Liable for Pregnancy Following Vasectomy— A trial court properly granted a physician's motion for summary judgment in a suit for damages by a patient whose wife conceived after the physician performed a vasectomy on him. There was no genuine issue as to any material fact, a Florida appellate court ruled.

The patient alleged that the physician was negligent in performing the operation and in examining him and advising him, after the operation, that he was sterile. The evidence established that a small percentage of vasectomies are unsuccessful. It was clear from the patient's deposition that he had no evidence by which to establish the physician's alleged malpractice. Since physicians are not insurers of the success of their treatments, the fact that the operation was not a success was not sufficient to create an issue of fact on the charge of malpractice. The pleadings did not raise an issue as to whether the physician orally guaranteed that the operation would be successful.—*Lane v. Cohen,* 201 So. 2d 804 (Fla., Aug. 8, 1967; rehearing denied, Sept. 12, 1967).

Texas Adopts "Discovery Rule" in Foreign Body Cases— A patient's suit against two physicians for alleged negligence in leaving a sponge in her body during the performance of a caesarean was not barred by the two-year malpractice statute of limitations, the Texas Supreme Court ruled. The suit was brought within two years of the patient's discovery of the sponge's presence in her body. The trial court therefore erred in granting the physicians' motion for summary judgment on the basis of the statute of limitations.

Following the caesarean in 1959, the patient suffered increasing internal pain. She underwent surgery in October, 1963, for removal of what was believed to be a tumor. The sponge's presence was discovered during the operation. This suit was filed in February, 1964.

The purpose of the statute of limitations is to compel the assertion of claims within a reasonable time of their origin, while the evidence is still fresh. However, in a case such as this, it is often difficult, if not impossible, to discover within the statutory limitation period that the foreign object has been left in the patient's body. A growing number of jurisdictions now follow the "discovery rule"—that the statute does not begin to run until the patient learns of, or in the exercise of reasonable care and diligence should have learned of, the foreign object's presence in his body. The court said that although it had rejected the "discovery rule" in malpractice cases in 1942 and 1965, it had applied the rule in fraud cases and those involving the seepage of water onto land.

All of the procedures for placing objects in and removing them from a patient's body are in the physician's control. It is virtually certain that the patient does not know the day after the operation, or for a long time thereafter, that a foreign object was left in the incision. The court said that it was, in the interest of justice, adopting the rule that the cause of action for a physician's negligent leaving of a foreign object in a patient's body accrues when the patient learns, or, in the exercise of reasonable care and diligence, should have learned of the object's presence in his body. This holding was limited to causes of action based on a physician's leaving of a foreign object in his patient's body. Since this particular type of case is not especially susceptible to fraudulent prosecution, the argument that the physician may have difficulty in producing evidence to refute the claim had little force. Further, the disadvantage to the physician was overbalanced by the shocking injustice to the patient under the contrary rule.

The physicians contended that the summary judgment should stand because the patient admitted that she had had an appendectomy in 1943, and that a jury could find only by pure guess and speculation that the sponge was left in her body during the 1959 operation. By filing the motion for summary judgment, the physicians assumed the burden of showing, as a matter of law, that the patient had no cause of action against them, and all doubts as to the existence of an issue of a material fact

must be resolved against them.—*Gaddis v. Smith*, 417 S.W.2d 577 (Tex., July 5, 1967; rehearing denied, July 26, 1967).

Damage Award Decreased Because of Refusal to Have Operation—In her suit for damages under the Federal Tort Claims Act for a spinal injury sustained in an automobile accident, a federal trial court awarded a woman as damages for future pain and suffering only the amount that would reasonably compensate her for the pain and suffering that she would reasonably be expected to endure if she submitted to the operation recommended by her physician.

The physician originally prescribed hot tub baths, certain exercises and medication for pain as treatment for the woman's injuries. Her condition worsened. About six months after the accident, the physician made a diagnosis of a ruptured intervertebral disc and recommended surgery. The woman was unwilling to submit thereto. He continued to recommend surgery as the woman's condition progressively worsened. At the time of the trial, two and one-half years after the accident, the woman had a 15-20% disability of her body as a whole as a result of her spinal injury.

The physician testified that if the woman submitted to the operation, she could expect a good result and would have no more than five percent disability of her body as a whole. He testified that although he had heard of disc repairs performed by other physicians where the patient was worse after the operation than before it, he had never personally had such an untoward result with a patient.

On the basis of the physician's testimony, it appeared that the recommended operation was relatively safe and extremely desirable, the court said. The operation was not of such a grave and severe nature as to permit her to refuse to submit to it and at the same time recover damages for her continuing pain and suffering. A reasonably prudent person would submit to the operation. The woman was entitled to be fully compensated for all of her pain and suffering up to the time of the trial. During the period between the time the operation was first recommended and the time of the trial, she could reasonably have hoped that her condition would improve without surgery. Her refusal to be operated on during that period was not unreasonable.—*Cline v. U.S.*, 270 F. Supp. 247 (D.C., Fla., July 7, 1967).

Damage Award Excessive in Suit Against Hospital—A jury verdict of $45,000 in favor of a patient in her suit against a hospital for injuries caused by its allegedly negligent treatment was excessive, a New York intermediate appellate court ruled. In the course of the hospital's treatment, the patient allegedly sustained a linear skull fracture and brain damage which aggravated her preexisting mental retardation. The patient was given the choice of consenting to the reduction of the verdict to $25,000 or having a new trial of the suit.—*Lake v. St. Francis Cardiac Hospital*, 282 N.Y.S.2d 976 (N.Y., July 10. 1967).

Order Reducing Nursing Home's Beds Upheld—A nursing home which is now licensed for 30 beds was not entitled to an order requiring the State Department of Health to restore the license it previously held under which it was permitted 45 beds, a Connecticut trial court ruled.

The department's regulations specify the number and type of nurses required to be on duty, which is dependent on the number of patients in the nursing home. The nursing home's license was reduced from 45 beds to 30 beds after several inspections disclosed that its nursing personnel was not sufficient to comply with the regulations. The nursing home was not "aggrieved" by the department's reduction of its license so as to be entitled to appeal therefrom. The reduction was not arbitrary. The department was merely enforcing a valid regulation. The nursing home can have its 45-bed license restored by complying with the department's regulations. —*Victoria Hospital, Inc. v. State Department of Health*, 227 A.2d 95 (Conn., March 23, 1965).

Blood Grouping Test Upholds Husband's Denial of Paternity—A blood grouping test excluded a husband as the father of a child for whom his wife was seeking support. The physician who made the test performed it again in the courtroom in order to confirm his results. It was believed to be the first time such a test had ever been performed in a courtroom.

The wife had brought suit against the husband for support of three minor children. The husband denied responsibility for support of the youngest child, claiming that he was not the father of the child and requested a blood grouping test. The court ordered the parties to appear for blood tests at the office of a physician who was a leading expert in the field. The results of the grouping test indicated that the husband was excluded as father of the child.

At the trial the wife objected to the admission of the test report unless given an opportunity to cross-examine the physician. The physician was called as a witness and testified that the child belonged to blood group B and the mother to blood group O, so that the father must belong to group B or AB and cannot belong to group A or O. Since the husband belonged to group A, he cannot be the father of the child. In order to confirm the exclusion, the physician performed the grouping test in the courtroom, taking blood samples from the parties, mixing the samples with the appropriate serums.

and demonstrating the clotting reactions.

The court held that the presumption of the child's legitimacy had been overcome by the test and ruled that the husband was not the father of the child. Commenting on the conclusiveness of blood test findings, the court quoted the physician's testimony that blood grouping tests are, in the hands of properly qualified experts, completely objective and unbiased and virtually infallible.—*Crouse v. Crouse*, 51 Misc. 2d 649 (N.Y., 1966).

Hospital Liable for Unauthorized Autopsy—A widow was entitled to recover damages against a hospital for performing an autopsy on her husband's body without her consent and against her wishes. Even though the body was not mutilated or the burial interfered with, the widow's mental suffering was compensable, a Louisiana intermediate appellate court ruled.

Immediately after her husband's death from lung cancer, a hospital resident asked the widow to sign a form authorizing an autopsy. The form had already been signed by two witnesses. The widow refused, saying her husband had gone through enough. Despite the refusal and conversation, the hospital performed an autopsy. The widow did not discover that the autopsy had been performed until she read the death certificate ten days later.

A hospital official testified that the unsigned consent form had gone to the hospital morgue with the body, and that since the witnesses' signatures were on it, the autopsy had apparently been performed under the mistaken impression that the widow's consent had been obtained. Since he was not present when the autopsy was performed, the official's testimony was hearsay and could not be considered.

The widow testified that her husband had expressed objections to an autopsy during his lifetime. She stated that she had worried, lost sleep and weight, and had had difficulty remaining at her work as the result of the autopsy.

The hospital contended that the widow was not entitled to recover because the body had not been mutilated or the funeral interfered with. Although there is no property right in a dead body within the ordinary meaning of the term, the right to dispose of it by a decent burial includes the right to possession of it in the same condition in which death left it and the right to recover damages for its unauthorized mutilation. The body may not have been noticeably mutilated, but a "Y" shaped incision had been made into the abdominal and thoracic cavities, various organs had been removed, and tissue samples taken. The primary consideration is not the extent of mutilation per se, but the effect of the mutilation on the feelings and emotions of those having the duty of burial.

The hospital also contended that since the widow did not learn of the autopsy until ten days after her husband's death, when she was suffering from the grief normally attendant upon such death, any mental anguish associated with learning of the autopsy could have resulted only in damages that were de minimus and, thus, not compensable. In her complaint the widow asked for damages of $5,000. The trial court awarded her $500. The appellate court said that although it was difficult to distinguish between the widow's mental anguish due to the autopsy and that due to normal grief because of her husband's death, it was convinced that a material part of her suffering was caused by the autopsy, particularly since it frustrated her own wishes and those of her husband. The award was increased to $1,500.—*French v. Ochsner Clinic*, 200 So. 2d 371 (La., May 23, 1967; rehearing denied, July 5, 1967).

Accused Entitled to Inspect Hospital Records—A man charged with vehicular homicide was entitled to an order permitting the pretrial inspection of his victim's hospital records for the period between the accident and her death, a New York trial court ruled.

The victim did not die until 17 days after the accident. According to the medical examiner, the cause of death was a massive pulmonary embolus resulting from the fracture of her leg which she sustained in the accident. The accused alleged that various physicians who had been consulted on the issue of causal relationship had expressed the opinion that the embolus might well have formed from causes unrelated to the fracture and that the hospital records would have to be consulted in order to come to a sound conclusion.

There are no statutes providing for pretrial discovery by an accused in a criminal case. However, a court has the inherent power to direct such discovery upon a showing that it is in the interest of justice to do so. The relatively lengthy period of time between the accident and the death and existence of the medical issue as to the causal relationship were sufficient to warrant discovery in this case.

The physician-patient privilege statute could not be asserted as a bar to the accused's inspection of the hospital records. The prosecution may not, under any circumstances, invoke the physician-patient privilege. However, the proscription of the privilege statute as to matters tending to affect the memory of the decedent applied.—*People of the State of New York v. Christiano*, 278 N.Y.S.2d 696 (N.Y., March 6, 1967).

Prisoner Not Rendered Incompetent by Librium—A prisoner's taking of Librium had not so affected his ability to cooperate with and assist his attorney, either before

or during his trial for armed robbery, as to deprive him of the effective assistance of counsel, a federal trial court ruled. Therefore, the prisoner was not entitled to an order vacating his conviction and sentence.

Three five mgm capsules of Librium per day were prescribed for the prisoner while he was held in jail before his trial. He testified that, instead of taking the drug as prescribed, he accumulated the capsules and, when he had a large number, he distilled them and injected them into his body by means of an eye dropper and syringe. He stated that during the period that he was on trial he took 100 mgm of Librium each morning before leaving the jail. He contended that as a result he became so drowsy and lackadaisical that he was unable to cooperate with and assist his attorney.

The prisoner testified that he did not, except on one occasion during the four-day trial, say "one word" to his attorney. The attorney testified that he conferred with the prisoner on two of the mornings before the proceedings began and during several of the recesses. He said that he knew the prisoner was taking Librium but that there was no indication that he was drowsy or was unaware of the trial proceedings. Further, the prisoner had cooperated fully with the attorney before the trial and the attorney had obtained all of the necessary information from him. An expert medical witness testified that a dose of 100 mgm of Librium was not uncommon and that its effect varied with the individual. He stated that that dosage of the drug would make a person drowsy, but that such drowsiness would be apparent to others and would last only one or two hours, after which the person would return to a state of normal wakefulness. The expert medical witness stated that even if the prisoner took the amount of Librium he said he did, he would be coherent, understand the proceedings, and be able to communicate with and assist his attorney.—*Kaufman v. U.S.*, 268 F. Supp. 481 (D.C., Mo., March 16, 1967).

Physicians' Good Faith Essential to Release Given by Patient—A suit against two physicians, a clinic, and a hospital by a patient whose legs were paralyzed following an appendectomy was not barred by a release given by the patient, the Washington Supreme Court ruled. There was evidence for the jury on the question of whether the physicians breached their duty of trust in not giving him an accurate prognosis, with the result that the release was based on a false premise and was thus invalid. The trial court's dismissal of the case was reversed and the case remanded for a new trial.

An epidural block was used in the operation. After the operation, a neurologist practicing at the clinic was called as a consultant. While he was still hospitalized, the patient was given muscle tests, an electromyogram and several physical therapy treatments. He made three outpatient calls after his discharge from the hospital. The patient could use a walker when he was discharged from the hospital. He progressed to crutches, then to canes. At the time of the trial, almost five years after the operation, he could walk on the level without canes for a block, but had no reflex reaction by which to catch himself if he stumbled. He has not been able to return to work as a truck driver.

Two months after his last hospital visit, which was six months after the operation, the patient called the hospital and asked to talk to an insurance adjuster. During his several meetings with the patient, the adjuster made no representations to him. The patient suggested a settlement based on his average weekly earnings for a year, because he thought that he would be unable to use his legs for only that long. The settlement was entered into on that basis after the adjuster consulted with the operating physician and a hospital committee. There was competent medical evidence which would have supported a finding that they knew, or should have known, from the patient's medical history and the tests that had been made, that an accurate prognosis that he would regain the use of his legs in a year could not be made.

The patient testified that: although he asked the operating physician what was wrong with him every time he saw him, he could never get an answer; no physician ever told him that he was suffering from nerve damage; the neurologist did not explain his findings; he was never told the results of the electromyogram, muscle tests, or physical therapy. The physician-patient relationship is a fiduciary one, involving the highest degree of trust, confidence, and good faith. The physicians, the clinic, and the hospital owed the patient the duty of providing him with an accurate prognosis so that he would have an informed basis for entering into a settlement. The patient's evidence, if believed, would have supported a finding that they breached that duty.—*Lockett v. Goodill*, 430 P.2d 589 (Wash., July 20, 1967). ◄

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28	14.65	293.24	75.78
36	19.45	361.30	107.90
37	20.20	370.12	112.51
38	21.00	378.99	117.07
39	21.80	387.92	121.77
40	22.65	396.90	126.55
41	23.60	405.91	131.45
42	24.55	424.02	141.43
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ABSTRACTS

BOOK REVIEWS

DRUG RESPONSES IN MAN

Ciba Foundation Symposium, edited by G. E. W. Wolstenholme and Ruth Porter, Little, Brown & Co., Boston, Mass., 1967; 256 pages with numerous tables and an extensive bibliography; $13.00.

More than two dozen experts participated in this very excellent roundtable discussion. Dr. Modell did a fine job in chairing the proceedings. It can be pointed out that for every three thousand drugs studied, only some 20 reach the stage of human trial; eventually, only *one* is released for general clinical use.

Obviously, our standards are high and drugs accepted for use by practicing physicians perform their tasks in the anticipated manner — almost always. It is the unexpected consequence that is really the topic of this symposium. If some responses, despite the most thorough laboratory investigations, will manifest themselves only after extensive clinical use: then, how can we sample drugs on humans most efficiently and with the least danger?

Could the thalidomide disaster have been foreseen? It took us ten years to discover that tetracyclines disturb bone development—30 years to uncover agranulocytosis due to amidopyrine! Is it feasible to do genetic enzymatic studies in order to uncover the one in a hundred thousand, or a million, oddities?

This volume is excellent reading for all of us. As usual, the printing, binding and paper are excellent. Every hospital library deserves to have it placed on its shelves.

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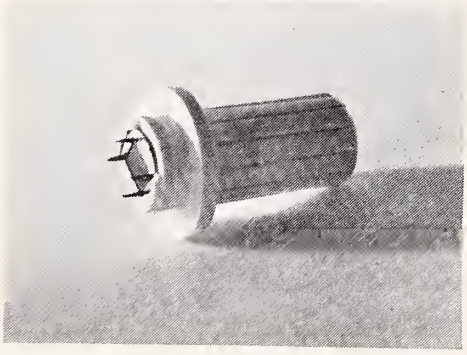

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THE HUMAN HEART: THE LAYMAN'S GUIDE TO HEART DISEASE

Phibbs, B.; Craddock, L.; Griffith, G.; Patrick, R. T., and Walker, C. H. M., The C. V. Mosby Company, St. Louis, 1967.

The book well accomplishes its goals: "It tells the essential facts about how the heart is made; it also tells how the heart works—what makes it beat and what that beat accomplishes. It tells about the main diseases that attack the heart, their causes, if known, what they actually do to the heart, and what the medical profession can do to cure or to help." And, most important, the book tells the patient what he can do to help manage his own disease.

The Human Heart can claim authenticity: the chief author and his collaborators are all authorities in the field of heart disease. Their coverage of the subject includes rheumatic fever, infectious heart disease, coronary heart disease, pulmonary heart disease, congenital heart malformations, irregularities, pregnancy and heart disease. The text also explores many subjects of deep interest to the cardiac patient: the electrocardiogram and what it offers; medical treatment of heart disease; the burgeoning field of heart surgery; heart catheterization.

Eminently practical topics such as the heart patient and his work, what to do about a heart attack (especially for those who, like the senior author, are sportsmen), and finally, a view through the looking glass, all have a place in the book.

The authors write clearly, beaming their book at the reasonably intelligent layman. To succeed in this—and they do succeed—there must have been a skilled editor or rewrite person, accomplished at writing for the layman. However accomplished, the end result is a small volume that can be heartily recommended not only for the patient with heart disease but for all interested in this rapidly growing field of medical knowledge. Further, the book offers much for the physician—family physician or specialist—perhaps for his own review, certainly for the edification of his patients.

Illustrations are ingenious and understandable, indeed memorable, not the least part of a noteworthy achievement.

W. D. SNIVELY, JR., M.D.
Evansville

MYOTATIC, KINESTHETIC AND VESTIBULAR MECHANISMS

Ciba Foundation Symposium, edited by A. V. S. De Reuck and Julie Knight, Little Brown & Co., Boston, Mass., 1967; 331 pages with numerous figures and tables; $13.50.

Study of the nervous system has not, as yet, reached the stage of macromolecular medicine. We are continuing on the level of amassing the finer detail made possible by the electron microscope, isotopic scanning and other such.

For this reason, the non-specialist is more baffled than enlightened by the really enormous and magnificent amount of refined histology and anatomy tossed his way by the erudite members of this symposium. Speaking only for myself, I can say — quite candidly — that I did not become enlightened by plodding through the jungle of material offered by this compendium. Possibly, the neurologists and ear specialists may be able to glean useful knowledge from this monograph. Certainly, the general practitioner and the specialists in the other fields will want to pass this by.

As always, the printing and binding, as well as the illustrations, continue to be truly superb.

ARNOLD LIEBERMAN, M.D.
New York, N.Y.

SYMPOSIUM ON GLAUCOMA

Transactions of the New Orleans Academy of Ophthalmology. The C. V. Mosby Co., St. Louis, 1967.

This book has Dr. Bernard Becker, Dr. Robert Shafer, Dr. Peter Kronfeld, Dr. Lorenz Zimmerman, Dr. Joseph Haas, Dr. Irvin Pollack and Dr. Mansour Armaly as contributors. It would be difficult to find a more qualified group.

Nearly half of this book is devoted to a roundtable discussion. The rest of the book has chapters on pathology, the miotics, hyperosmotic agents, epinephrine, diagnosis of glaucoma, steroids and glaucoma and surgical treatment. Every type of glaucoma seems to be included. The pathology slides by Dr. Zimmerman, many under very high magnification, are outstanding.

Emphasis is placed on the practical use of drugs although their mechanism of action and complications following use are included. This book appears to have gathered together most of what is known about present day treatment of glaucoma and, in it, every ophthalmologist should be able to find something to help him in his troublesome cases.

THEODORE O. MEYER, M.D.
Fort Wayne

Abstracts From Various Literature, Prepared by AMA

HYPERBARIC OXYGEN

J. H. Duff et al. (Royal Victoria Hospital, Montreal)
Canad. Med. Assoc. J. 97:510-515, (Sept. 2), 1967.

Eighty-three patients were treated in a hyperbaric chamber. Aside from decompression sickness, the rational of therapy was based on the increased amount of oxygen dissolved in the blood that can be achieved under hyperbaric conditions. Four of six patients with gas gangrene survived and showed a rapid decrease in toxicity from severe anerobic infection. Three of six patients with chronic infections resistant to conventional therapy showed marked improvement and eventual wound healing. Eight patients in shock refractory to other forms of therapy did not improve with hyperbaric oxygen. In eight patients with ischemic disease of various tissues, eventual outcome of the ischemic lesion was not influenced by hyperbaric oxygen therapy, although transient improvement was noted. In respiratory distress syndrome transient improvement occurred but all three infants treated died. Combined therapy of hyperbaric oxygen and radioactive drugs for patients with inoperable tumors was not significantly superior.

PSYCHOSIS ASSOCIATED WITH USE OF SEQUENTIAL ORAL CONTRACEPTIVE

R. J. Daly, F. J. Kane, Jr., and J. A. Ewing (Royal Edinburgh Hospital, Moringside Park, Edinburgh)
Lancet 2:444-445, (Aug. 26), 1967.

Psychosis developed in two women in close temporal association with the use of a sequential oral contraceptive, in one case with the estrogenic component (mestranol) and in the other, with the estrogen-progesterone mixture (mestranol and

In Obesity, anorectic action with fewer unwanted side effects

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Sleep at 10

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chlormadinone). Previous history revealed postpartum psychiatric disturbance in both cases and psychosis with another oral contraceptive in one case.

CHRONIC GRANULOCYTIC LEUKEMIA: STUDIES OF A PATIENT AND HIS TWIN

H. J. Woodliff and P. Onesti (Royal Perth Hospital, Perth, W. Australia)

Med. J. Aust. 2:397-403, (Aug. 26), 1967.

The patient showed the typical features of chronic granulocytic leukemia and the case was unusual only in that the patient had a twin brother. The studies carried out clearly showed that the twins were monozygous. The presence of the Philadelphia (Ph^1) chromosome in the patient's cells and its absence from those of his twin confirm that this abnormality is acquired and almost certainly not inherited. However, attempts to find a leukemogenic environmental factor operative in the case of the patient and not in the normal twin were unsuccessful. The available evidence suggests that, after total body irradiation, the bone marrow transplant from the normal twin may have taken; but the evidence is inconclusive. It is possible that the patient may have developed radiation pneumonitis and that a lower dose may therefore have been more suitable. It is desirable to have a hyperbaric oxygen chamber available for the treatment of such patients. The cell culture studies between the twins are compatible with the monozygous state and lend support to the view that mixed cultures may be of value as a test for histocompatibility.

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ROAD TRAFFIC, TRANQUILIZERS, AND ALCOHOL

P. Kielholz et al. (Psychiatrische Universitatsklinik, Wilhelm-Klein-Str. 27, Basel, Switzerland)

Deutsch Med. Wschr. 92:1525-1531, (Sept. 1), 1967.

It was investigated whether or not the tranquilizers chlordiazepoxide and meprobamate, either alone or in combination with alcohol, affected driving skill. Double-blind tests were carried out on 120 volunteers from the police force of Basel. They were given either a placebo, 400 mg of meprobamate, 10 mg of chlordiazepoxide, or a combination of one of the drugs with alcohol, and their driving ability was then assessed under normal road conditions and on a specially designed track. During these tests the concentration of alcohol and of the drugs in the blood and the reaction time were determined. The persons taking part in the test were also asked by questionnaire for their subjective view of their performance. In the doses administered neither chlordiazepoxide nor meprobamate affected driving skill, nor did they appreciably potentiate the effects of alcohol. There was, however, a highly significant impairment of driving skill, when the blood alcohol had reached a concentration of 0.8 per 1,000.

BILATERAL RENAL CALCULI AND AMINOACIDURIA AFTER EXCESSIVE INTAKE OF WORCESTERSHIRE SAUCE

K. J. Murphy (Princess Alexandra Hospital, Ipswich Rd., Woolloongabba, Queensland, Australia)

Lancet 2:401-403, (Aug. 19), 1967.

Two patients with bilateral renal calculi were found to have aminoaciduria and a history of long-continued and excessive intake of Worcestershire sauce. No other cause of kidney stones was found. As Worcestershire sauce contains a number of potentially nephrotoxic ingredients, it is suggested that these agents have caused the aminoaciduria and the kidney stones.

PREVENTION OF ERYTHROBLASTOSIS FETALIS BY ADMINISTERING ANTI-D SERUM TO THE MOTHER

J. Schneider et al. (Universitats-Frauenklinik, Hugstetter Str. 55, Freiburg/Br, Germany)

Deutsch Med. Wschr. 92:1458-1463, (Aug. 18), 1967.

In a joint study begun in 1965 of four maternity and one pediatric clinic, the effectiveness of preventing erythroblastosis fetalis in the offspring of Rh-negative mothers by anti-D serum administration was assessed. Until April, 1967, a total of 198 Rh-negative mothers, in whom a fetomaternal microtransfusion above 0.05 ml had been demonstrated after the birth of an Rh-positive child, were treated with anti-D containing serum or immunoglobulin-anti-D. No Rh antibodies were demonstrated in any of the 126 women reexamined four to six months later. None of the 16 Rh-positive children born after the described prophylactic treatment had erythroblastosis.

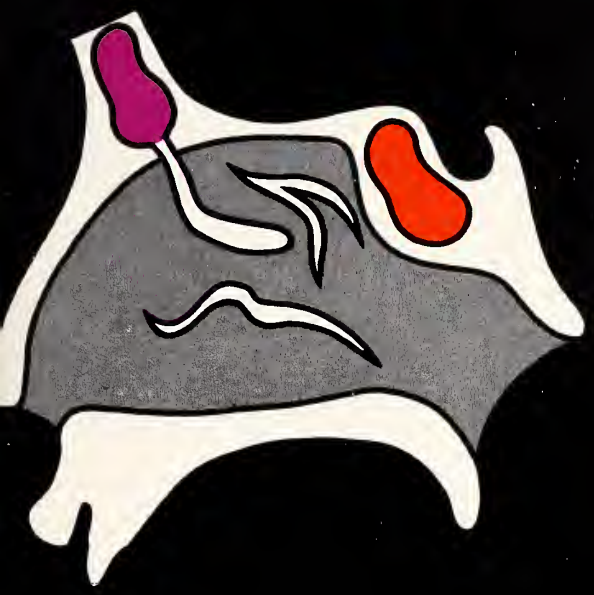
PHEOCHROMOCYTOMA AND SMOKING

W. M. Dugan, Jr. (960 Locke St., Indianapolis)

Arch. Intern. Med. 120:365-370, (Sept.), 1967.

A patient with recurrent pheochromocytoma, who demonstrated hypertensive paroxysms induced by smoking, is reported. The relationship between nicotine and catecholamine release is discussed. ◄

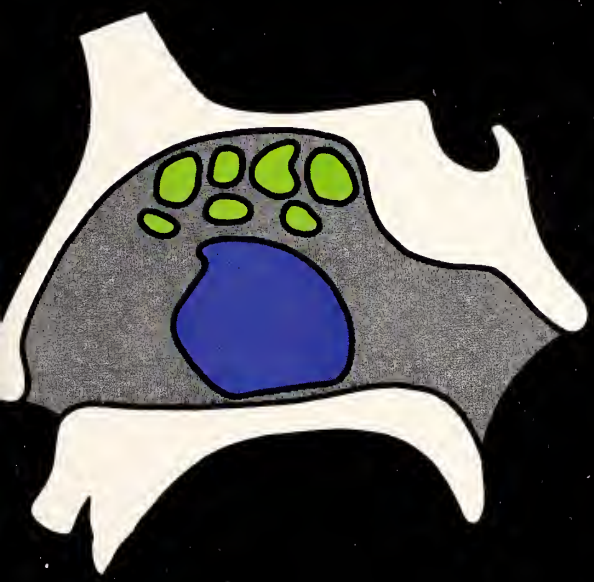
Sources of sinus headache



REGION OF SENSATION

FRONTAL SINUS—headache localized over the frontal region, commonly beginning in the morning. Eyes painful to touch, may be slight swelling over eyes, puffy eyelids.

SPHENOID SINUS—most difficult to diagnose. Headache or sense of pressure over vertex. May be pain in ear or mastoid region.



MAXILLARY SINUS—headache and tenderness under eyes at top of cheekbones, usually starting in early afternoon. Possible swelling of cheek. Pain in jaw and back teeth.

ETHMOID SINUS—headache, tightness in upper part of bridge of nose and well down its sides. Pain, deep-seated behind the eyes and in inner corners of the eyes.

TURBINATES—pain along medial and lateral walls of the inside of the nose. Headache in frontal region, along supraorbital ridge, a feeling of fullness in the head.

Source of symptomatic relief

SINUTAB

Sinus headache is often a reflection of congestion in the nasal mucosa. The pain that results in the various regions of the head may help in determining the particular structure(s) responsible. The Sinutab formula is specifically designed for symptomatic relief of sinus headache and nasal congestion. **Sinutab** *not only* **provides an effective decongestant** — to reduce mucosal engorgement and facilitate freer breathing — *and* **an antihistamine** — to help reduce edema and excessive secretions — but it *also* provides, in contrast to other leading decongestants, **two analgesics** for immediate relief of pain and discomfort.

And, too, the Sinutab dosage schedule of 2 tablets, *q.* 4 *h.* permits controlled and continuing analgesic relief.

Adverse Reactions: Epigastric distress, drowsiness, dizziness, insomnia and nervousness.

Precautions: Instruct patients not to drive or operate machinery if drowsiness occurs. Use with caution in patients with thyroid disease, heart disease, hypertension, diabetes or kidney disease. Excessive dosage or prolonged use may cause kidney damage.

Dosage: Adults—2 tablets every 4 hours.

Each tablet contains 150 mg. acetaminophen, 150 mg. phenacetin, 25 mg. phenylpropanolamine HCl, and 22 mg. phenyltoloxamine citrate.

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Also Available on Prescription:

Sinutab® with Codeine.* Each tablet contains 15 mg. (¼ gr.) codeine phosphate (Warning: May be habit forming), 150 mg. acetaminophen, 150 mg. phenacetin, 25 mg. phenylpropanolamine HCl, and 22 mg. phenyltoloxamine citrate.

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Riley Memorial Association Will Sponsor Six-Week Camping Program

This summer, for the fourteenth successive year, the Riley Memorial Association will sponsor a six-week camping program for physically handicapped children in Camp Riley at Bradford Woods near Martinsville.

Dates for the three camping sessions are July 14 to July 26, July 28 to August 9 and August 11 to August 23. Approximately 60 campers will be accepted for each session, on a first-come, first-served basis.

With the written approval of the family physician, any physically handicapped child 8 through 15 years is eligible to apply for admission to Camp Riley. Application blanks and full information may be obtained from the Riley Memorial Association, 129 E. Market St., Indianapolis, or from Miss Thelma O'Reilly, hostess at Riley Hospital. Applications are subject to the approval of a camp admissions committee composed of Riley Hospital physicians, nurses, therapists and medical social workers.

Diabetic children and the mentally retarded are not considered for the Riley Memorial Association camps, since organizations for their benefit sponsor and operate their own separate summer camps.

A staff of college-level counselors, supervised by a nationally recognized camp director, does everything necessary to give the physically handicapped children an outdoor living and educational program comparable to that enjoyed by youngsters who are not crippled or affected by disease. Limited only by the most severe restrictions, where even individual attention by counselors cannot prevail, the physically handicapped children enjoy every camping activity offered in a camp for normal children.

Doctors and nurses are on duty at all times, operating from a modern, well-equipped infirmary. Food preparation is supervised by a trained dietitian.

Gift camperships provided by many individuals and organizations make it possible for handicapped children from families of limited means to spend two weeks at this non-profit recreational facility. Requests for application blanks or inquiries regarding any phase of the program may be addressed to Riley Memorial Association, 129 E. Market St., Indianapolis, Indiana 46204.

Groups Merge to Consolidate Concern for an Age-Old Problem

For the more than two million Americans who have epilepsy, the recent merger of The Epilepsy Foundation and Epilepsy Association of America means renewed hope for a normal and productive life.

The many problems faced by those with epilepsy—prejudice, rejection, isolation, chronic unemployment—are great. But, equally great are the promises and potentials of this strong, new nationwide organization—Epilepsy Foundation of America.

The combined staffs and other new resources created by the merger will make it possible to bring vital and long-delayed services to our communities. With the support of the public, the new organization will mobilize effective community action programs, stimulate support for research into this mysterious disorder, and educate both public and professional about the problems faced by so many of our citizens.

Unprecedented efforts are already underway to eliminate the prejudice surrounding the disorder and to secure employment opportunities for epilepsy patients. President Johnson recently called the formation of Epilepsy Foundation of America "a milestone in a major voluntary health field."

Dr. Ellis Named

Dr. Forrest D. Ellis, North Vernon, has been named the county representative on the first board of directors of the Region Ten Mental Health Foundation, Inc.

Dr. Ranck Reappointed

Dr. Benjamin A. Ranck, Columbus, has been reappointed school director by the board of the Bartholomew Consolidated Schools. Dr. Ranck's term will run until June 30, 1968.

Continued

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The relief received from the first Trocinate 400 mg. tablet is so prompt that the discomfort of diarrhea ceases to be a bother. May be repeated every four hours.

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Dr. David Rosenbaum History Of Medicine Society Speaker

Dr. David Rosenbaum, of the Indiana University Medical Center, will be the principal speaker at the April 10 meeting of the John Shaw Billings History of Medicine Society. His topic will be "Rudolph Virchow and Social Revolution."

The group meets at the I.U. Student Union Building, Indianapolis. The social hour begins at 6:00 p.m., dinner is set for 6:45 p.m. and the speaker at 8 p.m.

Dr. Scott Named

Dr. John R. Scott, Indianapolis, has been elected president of the National Association of Wabash Men. Dr. Scott will serve as head of the governing body of Wabash alumni affairs for 1967-68.

Dr. Sandock Elected

Dr. Louis F. Sandock, South Bend, has been elected to the board of Tower Federal Savings & Loan Association there.

New Film Available On Mentally Retarded

"Bold New Approach" is a Public Health Service medical educational film, 16 mm. black and white, sound, 28 minutes which reviews the Community Mental Health Centers Act and describes "a bold new approach" to the treatment of the mentally ill.

It is for showing to health-related organizations and community leaders. Available on free, short-term loan from National Medical Audiovisual Center, Chamblee, Georgia 30005.

Drs. Voorhees, Andrew on TV

Drs. Robert J. Voorhees and Jerald L. Andrew, Fort Wayne, were recently on a special documentary color television program. The program titled "20th Century Epidemic" was a report on the total cardiovascular problem and its effect on the American family.

Dr. Haywood Elected

Dr. John G. Haywood, Noblesville, has been elected president of the Indiana Coroners' Association.

Two New Educational Films Now Available to Physicians

The National Medical Audiovisual Center has two new medical education films. "Teaching the Mentally Retarded—A Positive Approach" is 16 mm, black and white, sound, 23 minutes, to be shown to audiences composed of professional people trained in the field of mental retardation.

The other film is titled "Getting Through", 16 mm. black and white, sound, 20½ minutes. It is designed to discourage smoking, especially by youth. Recommended audience—teenagers and young adults, teachers, youth workers and parents. Both films are available on short-term free loan from the Center at Chamblee, Georgia 30005.

Dr. Bond Honored; Dr. Hall Installed

Dr. George S. Bond, Indianapolis, who pioneered and promoted use of the electrocardiograph and a professor emeritus at

the Indiana University School of Medicine, was recently given a "Special Recognition Award" for outstanding services to mankind by the Marion County Heart Association.

Dr. Jack H. Hall, Indianapolis, director of education at the Methodist Hospital graduate medical center, was installed as president of the association at the same meeting.

Medical Films, Color Television to be Features at 117th AMA Annual Convention

Approximately 50 medical motion pictures will be shown as part of the scientific program at the 117th annual convention of the American Medical Association in San Francisco, June 16-20.

Color television, presented live from a San Francisco-area medical facility, also will be featured.

The medical motion picture program will include the premiere of a new film on Diagnosis of Heart Disease, made with the sponsorship of the American College of Cardiology. Narrator of the film is Tinsley Harrison, M.D., Distinguished Professor of Medicine, University of Alabama, an internationally known authority on diagnosis of the causes of cardiac pain.

Other films to be included: Radiographic Visualization of the Biliary System and Cholecystectomy and Choledochotomy, by Dr. Frank Glenn; Bullet Embolus of the Right Ventricle, by Arthur Beall; Role of the Endometrium in Conception and Menstruation, by Dr. John Rock; and, Cold Light Endoscopy, by Norman P. Schenker of Munich, Germany, an award-winning film made in France, Germany and Austria for U.S. physicians.

Five scientific sections are to present programs on color television: Dermatology, case presentations; General Surgery, a surgical program including live telecast of an operation, moderated by J. Englebert Dunphy, Professor of Surgery, University of California; Laryngology, Otology and Rhinology, a program on sinus diseases; Obstetrics and Gynecology, the complete gynecologic examination; Orthopedic Surgery, spine problems in children.

The entire scientific program for the 1968 annual convention will be published in the May 6 issue of *The Journal of the American Medical Association.*

Dr. Rice Named Fund Head

Dr. Raymond D. Rice, Indianapolis, has been named Indianapolis area vice-chairman for medical alumni in Washington University's $70 million fund-raising program. Alumni in 35 areas throughout the nation will help raise funds during the next two years to be used by the St. Louis, (Mo.) university for teaching and research programs, endowments and new facilities.

Dr. Black Elected

Dr. Joseph M. Black, Seymour, has been elected a director of the Jackson County Bank of Seymour.

New Exhibit on Medical Careers Now Available from the AMA

To satisfy a growing demand for a lightweight exhibit appealing to the broad range of medical careers, rather than one emphasizing only physician careers, the AMA has developed a colorful tabletop exhibit, "Health Careers."

Four of these exhibits are now available from the Exhibits Section, Program Services Department, for Careers Day programs in schools, health fairs, state fairs and other programs.

Featuring a color transparency of the cover of the AMA's careers handbook, *Horizons Unlimited,* the full-color folding

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Precautions: Usual for aminophylline-ephedrine-phenobarbital. Iodides may cause nausea, long use may cause goiter. Discontinue if symptoms of iodism develop.

Iodide contraindications: tuberculosis, pregnancy.

DOSAGE

One tablet, with full glass of water, 3 or 4 times daily.

Dispensed in bottles of 100 and 1000 tablets.

MUDRANE GG—Formula, dosage and package identical to Mudrane—*except*—100 mg. glyceryl guaiacolate replaces the potassium iodide. The value of Mudrane cannot be enjoyed by a small group in which K.I. is contraindicated. Mudrane GG is prepared for this group.

MUDRANE GG ELIXIR—Four 5 cc teaspoonfuls is equivalent to one Mudrane GG tablet. Dosage adjusted to age and weight of child. Mudrane GG Elixir is for pediatric patients and those who think they cannot swallow tablets. Dispensed in pint and half gallon bottles.

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exhibit, which is eight feet wide and 40 inches tall, calls attention to the fields of specialization and other specialized areas of interest open to doctors of medicine and more than 20 principal allied fields ranging from medical librarian to dentistry.

"There's a place in MEDICINE for every qualified student," the exhibit emphasizes.

Since "Health Careers" weighs only 120 pounds, less than half that of the exhibit, "Medicine as a Career," shipping costs correspondingly are reduced. Recipients must pay round-trip shipping costs. Those desiring to order the exhibit should give a minimum of 30 days' notice, although several months is preferable. Loan orders will be filled on a "first come, first served" basis.

Orders for suitable AMA careers literature to be displayed at the exhibit should either accompany exhibit orders or be placed separately with the Program Services Department.

Dr. Welborn Gives Address

Dr. Mel B. Welborn, Evansville, recently addressed members of Evansville's second class of surgical technical aides. His topic was "The Crisis in Medical Manpower."

Dr. Baxter Appointed

Dr. Harry R. Baxter, Seymour, has been appointed a member of the medical affairs and research committee of the Indiana Tuberculosis Association. Dr. Baxter has been a member of the board of directors of the Tuberculosis Association of Jackson County, Inc., for several years and is currently serving as its first vice-president.

SKF Grant to Support Pilot Study on Problems of Drug Abuse

Training educators to deal with the widespread problem of drug abuse will be the primary objective of a pilot program to be developed by Butler University under a $10,000 grant from Smith Kline & French Laboratories, Philadelphia, manufacturer of prescription medicines and other health-related products.

Among the first of its kind in the United States, the program focuses attention on "educating the educator" on the dangers of misuse and abuse—as well as the important medical uses—of drugs. The project will be highlighted by a one-week workshop to be held this summer at Butler, beginning June 17.

Forty classroom teachers and 20 administrators will be invited to participate in the initial program, according to plans outlined by the co-directors.

Among the hoped-for results from the pilot program will be the compilation of a practical guidebook designed for use by other colleges and universities, and the establishment of guidelines so that the course can be offered on a nation-wide basis.

Dr. Owsley Visits Alaska

Dr. and Mrs. Guy A. Owsley, Hartford City, recently visited Anchorage, Alaska, where Dr. Owsley inspected health facilities for an American Medical Association group. Dr. Owsley is a member of the Council on Medical Services of the AMA.

Dr. Love Named

Dr. V. Logan Love, Marion, has been elected to the board of directors of the Syracuse Medical Alumni Association, Inc.

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IMPOTENCE

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*Effectiveness confirmed by another double blind study**

1. SUMMARY

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6. Case histories on 4 patients.
7. Although psychotherapy still needed, role of chemotherapy cannot be disputed.

**"Sexual impotence treatment with methyl testosterone – thyroid (ANDROID) a double blind study" – Montesano, Evangelista: Clinical Medicine, April 1966.*

CONTRAINDICATIONS—Methyl testosterone is not to be used in malignancy of reproductive organs in male, coronary heart disease. Thyroid is not to be used in heart disease, hypertension unless the metabolic rate is low.

Choice of 4 strengths

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Methyl Testosterone ..2.5 mg.
Thyroid Ext. (1/6 gr.) ..10 mg.
Glutamic Acid .....50 mg.
Thiamine HCL .....10 mg.
Dose: 1 tablet 3 times daily.
Available: Bottles of 100, 500, 1000.

Android-HP
HIGH POTENCY
Each red tablet contains:
Methyl Testosterone ..5.0 mg.
Thyroid Ext. (½ gr.) ...30 mg.
Glutamic Acid .....50 mg.
Thiamine HCL .....10 mg.
Dose: 1 tablet 3 times daily.
Available: Bottles of 100, 500, 1000.

Android-X
EXTRA HIGH POTENCY
Each orange tablet contains:
Methyl Testosterone .12.5 mg.
Thyroid Ext. (1 gr.) ....64 mg.
Glutamic Acid .....50 mg.
Thiamine HCL .....10 mg.
Dose: 1 or 2 tablets daily.
Available: Bottles of 60, 500.

Android-Plus
WITH HIGH POTENCY B-COMPLEX AND VITAMIN C
Each white tablet contains:
Methyl Testosterone ..2.5 mg.
Thyroid Ext. (¼ gr.) ...15 mg.
Ascorbic Acid (Vit. C) .250 mg.
Thiamine HCL .....25 mg.
Glutamic Acid .....100 mg.
Pyridoxine HCL .....5 mg.
Niacinamide .....75 mg.
Calcium Pantothenate .10 mg.
Vitamin B-12 .....2.5 mcg.
Riboflavin .....5 mg.
Dose: 2 tablet twice daily.
Available: Bottles of 60, 500.

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2500 W. 6th St., Los Angeles, Calif. 90057

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also available with ESTROGEN
Android-E
Each Tablet Contains:
Methyl Testosterone ..... 2.5 mg.
Ethinyl Estradiol ..... 0.02 mg.
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INDICATIONS: Advantage is taken of the anabolic action of ANDROID without its virilizing effect. Estrogen balances the androgen—only steroid effect remains. Geriatrics, post operative and debilitating disease, osteoporosis. **DOSE:** One tablet t.i.d. Female patients should have a rest period 5 to 7 days after 21 days of medication. **SIDE EFFECTS:** In the female, excessive dosage may produce virilizing effects of most androgens: hoarseness, hirsutism, enlarged clitoris. Symptoms can be avoided by keeping the dosage below 300 mg. of testosterone per month. **CONTRA-INDICATIONS:** See Android. Ethinyl estradiol is not to be used in latent malignancy of reproductive organs or mammary glands.

PHS Announces New Films On Mammography for Radiologists

The Public Health Service announces new medical films on mammography. Non-malignant disease is covered by two films, each with a running time of 30 minutes. Malignant breast disease is covered by two films, with running times of 35 and 38 minutes.

All films are 16 mm, black and white and with sound. They are narrated by Dr. Robert L. Egan, formerly with Methodist Hospital, Indianapolis, now Associate Professor of Radiology at Emory University. The use of the films is restricted to individuals listed in the Directory of the American College of Radiology. Write National Medical Audiovisual Center, Chamblee, Georgia 30005.

Dr. Gitlin Renamed

Dr. William A. Gitlin, Bluffton, has been reappointed for a third term as the Harrison Township representative on the Bluffton-Harrison school board.

Dr. Craig Elected

Dr. Robert A. Craig, Syracuse, has been elected member of the Lakeland Community School Corporation's board of trustees.

Dr. Ball Honored

Dr. Clay A. Ball, Muncie, has been elected an honorary member of the Muncie Rotary Club. Dr. Ball, who will be 90 in October and who still maintains office hours six days a week, was among the first members of the club after it was chartered 50 years ago.

Dr. Beardsley Elected

Dr. Frank A. Beardsley, Jr., Frankfort, has been elected to active membership in the American Academy of General Practice.

Dr. Dennison is Guest Speaker

Dr. Alfred D. Dennison, Jr., Indianapolis, cardiologist at Methodist Hospital, spoke on "The Supreme Choice of the Ages" at a recent program at the Plainfield Christian Church.

Dr. Brown Re-elected

Dr. John S. Brown, Carlisle, has been re-elected to his 45th term as secretary of the Second District of the Indiana Medical Association.

Dr. Davis Participates in U.S. Conference

Dr. Joseph B. Davis, Marion, recently attended the National Conference on Medical Costs. Dr. Davis addressed members of a panel discussion on the subject "How Can Physicians' Productivity Best be Increased?"

Dr. Longshore Elected

Dr. Robert E. Longshore, Kokomo, has been elected as school physician of the Kokomo-Center School. Dr. Longshore will replace Dr. Frederick Schwartz, who is retiring after 17 years as school doctor.

Dr. Martz Accorded Honor

Dr. Carl D. Martz, Indianapolis, was recently presented the Charles P. Willis award for outstanding contribution to the cause of the cerebral palsied. Dr. Martz, who is clinical professor of orthopedic surgery at the I.U. Medical Center, is medical director of the Cerebral Palsy Clinic there. ◄

Q. How much does the **anticostive*** **hematinic** cost?

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The anticostive hematinic is

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A tablet-a-day provides:

● Elemental Iron (as Ferrous Fumarate)	100 mg
● Dioctyl Sodium Sulfosuccinate (to counteract constipating effect of iron)	100 mg
Vitamin B_1	7.5 mg
Vitamin B_2	7.5 mg
Vitamin B_6	7.5 mg
Vitamin B_{12}	50 mcgm
Vitamin C	200 mg
Niacinamide	30 mg
Folic Acid	0.05 mg
Pantothenic Acid	15 mg

Bottles of 60

*

anticostive, *adj.* (*anti* opposed to + *costive* causing constipation.) Against constipation. (Now isn't that a good idea in an iron-containing hematinic? We'll send you samples if you'll send a request on your Rx blank, addressed to Department 150.)

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From *The Journal* 50 Years Ago

. . . The attitude toward appendicitis taken by a community often is an indication of the state of diagnosis and action in surgical affairs in that community. It matters not if the doctor's enthusiasm progresses faster than his ability to differentiate between appendicitis, cholecystitis, salpingitis, surgical kidney, etc. The treatment of each of these is surgical and to the surgeon belongs the responsibility of making the distinction. To know when such an infection is present and when is the proper time to act is more important than to be able to give it an exclusive name.

* * *

There is one saving feature about appendicitis: the disease in its beginning is contained within a functionless organ that can easily and safely be removed. If every diseased appendix could be removed while the disease was still "in the original container" there would be practically no mortality from appendicitis. It has become a recognized fact among surgeons that the pathological processes attending appendicitis progress hour by hour and that the patient's safety decreases to a proportionate degree hour by hour. Operation as soon as a diagnosis is made has now stood the test of time. Thirty-six hours after the initial symptom is shown to be the extreme limit of safety, though some cases progress faster than the average for which this time limit is given . . . . Goethe Link, M.D., Indianapolis, "Appendicitis," *JISMA*, March, 1918.

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Blue Cross–Blue Shield handles things directly with hospitals and with doctors—doesn't bother members or their bosses. That's one reason why employees *and* employers are so strong for it.

Actually, in these days of quality but higher cost medical care, you can't afford to be without the protection of Indiana's No. 1 health care plan. As they say around the happier homecomings—— **"I don't know what we would have done without Blue Cross–Blue Shield."**

Blue Cross-Blue Shield

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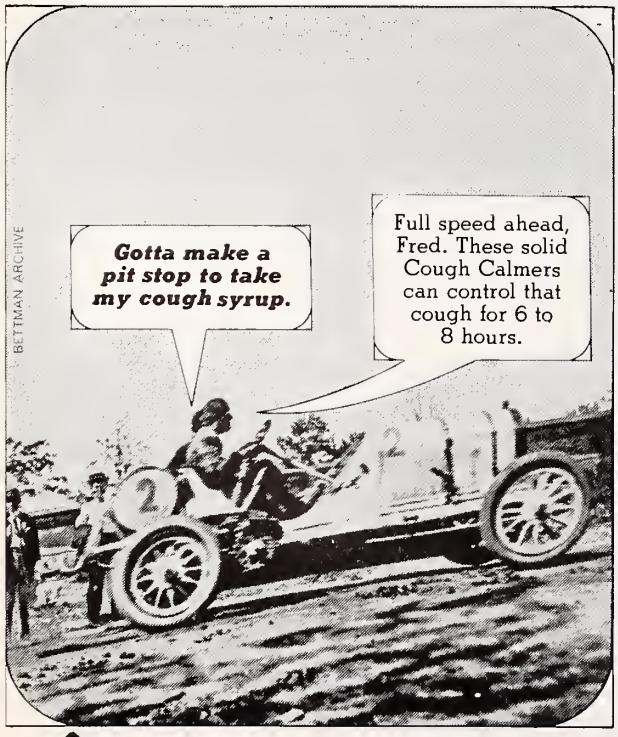
(One of a series of ads being run in key Hoosier newspapers)

Cook County Graduate School of Medicine Announces Education Course

The Cook County Graduate School of Medicine announces a two-week intensive continuing education course in The Neuromuscular Diseases of Children with Special Emphasis on Management, to be given by Dr. Meyer A. Perlstein for the period of June 3 - 14, 1968.

This is an intensive didactic and clinical course designed for pediatricians, orthopedists, neurologists, psychiatrists and physiatrists interested in the care and treatment of children with neuromuscular handicaps. Emphasis will be placed on the practical clinical aspects of treatment and rehabilitation procedures. The course will include trips to demonstration clinics and treatment centers.

The fee for the course is $315, and since registration will be limited, applications should be made as far in advance as possible. For further information, write to the Registrar, Cook County Graduate School of Medicine, 707 S. Wood St., Chicago, Illinois 60612.



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"The Management and Care of Respiratory Insufficiency" Course

"The Management and Care of Respiratory Insufficiency" will be the subject of a postgraduate medical course to be conducted by the University of Colorado School of Medicine April 17 to 19.

The fee for the course is $75.00. Write Office of Postgraduate Medical Education, University of Colorado School of Medicine, 4200 E. Ninth Ave., Denver 80220.

"Treatment of Cardiac Emergencies" Course Offered April 10 in Chicago

The third annual "Frontiers of Medicine" series will present a course on "Treatment of Cardiac Emergencies" April 10 at the University of Chicago Hospitals and Clinics.

Further details on the program and information on registration may be obtained by writing David M. G. Huntington, Administrative Coordinator, Committee on Continuing Medical Education, The University of Chicago, 950 E. 59th St., Chicago 60637.

Annual Otolaryngologic Assembly To be October 12 through 18, 1968

The annual Otolaryngologic Assembly of 1968 will be held October 12 through 18, in the Illinois Eye and Ear Infirmary at the Medical Center, Chicago. The Department of Otolaryngology of the College of Medicine of the University of Illinois offers a condensed postgraduate basic and clinical program for practicing otolaryngologists under the direction of Dr. Emanuel M. Skolnik. It is designed to bring to specialists current information in medical and surgical otorhinolaryngology.

A separate, but correlated course entitled "Head and Neck Radiology Conference" under the guidance of Doctor Galdino E. Valvassori, will be conducted by the department of radiology for two full days just preceding the assembly, Thursday and Friday, October 10 and 11, 1968.

Interested physicians should direct communications to the mailing address: Department of Otolaryngology, P. O. Box 6998, Chicago, Illinois 60680.

Symposium on "Biochemical and Clinical Aspects of Alcohol Metabolism" Set

A symposium on "Biochemical and Clinical Aspects of Alcohol Metabolism" will be sponsored April 11 and 12 by the Wayne State University School of Medicine, Detroit, Mich. The two-day program will be held at the headquarters of the Wayne County Medical Society, 1010 Antietam.

Twenty-five presentations will be made by physicians and scientists from 17 universities, laboratories and hospitals in the United States and Canada.

In addition to seven clinical studies, the program will cover: determination of alcohol, alcohol dehydrogenase, metabolic effects

of alcohol (experimental) and effects of alcohol on tissues and organs.

Chairman of the symposium is Vishwanath M. Sardesai, Ph.D., assistant professor of surgery at the Wayne State University School of Medicine.

Continuation Course in Clinical Electroencephalography September 9-11

A continuation course in Clinical Electroencephalography will be held September 9-11, 1968 in San Francisco, California. The course is designed as a basic review of the applications of the EEG to clinical medical practice, and is sponsored by the American EEG Society (aided by a grant from the National Center for Chronic Disease Control, U.S. Public Health Service).

The faculty will include Drs. Reginald G. Bickford, Rochester, Minn.; David D. Daly, Dallas, Tex.; Robert J. Ellingson, Omaha, Neb.; Eli S. Goldensohn, New York, N.Y.; Charles E. Henry, Cleveland, Ohio; Peter Kellaway, Houston, Tex.; John R. Knott, Iowa City, Iowa; Michael G. Saunders, Winnipeg, Canada; Daniel Silverman, Philadelphia, Pa.: Richard D. Walter, Los Angeles, Calif.

Inquiries about further details of the course or registration procedure should be addressed to Dr. Donald W. Klass, EEG Course Director, Mayo Clinic, Rochester, Minnesota 55901.

Postgraduate Medical Course in Care of Spinal Cord Injury Patients

A postgraduate medical course in the care of spinal cord injury patients will be offered to 30 selected physicians in Long Beach, Calif., April 29 through May 3.

Experts in spinal cord injury care from VA's specialized centers will lecture and demonstrate treatment technics on all aspects of the emergency and early care, rehabilitation and continuing care of the spinal cord injury patient.

The course is being conducted without charge to bring the benefits of VA's exceptional experience in this highly specialized field of medicine to the entire medical community.

The Long Beach course is the first of a series that will be conducted twice yearly. The second is tentatively scheduled for West Roxbury, N.Y., later this year.

Applications for attendance may be made to Veterans Administration, Chief of the Spinal Cord Injury Staff, 810 Vermont Ave., N.W., Washington, D.C. 20420. Eligibility to attend the free course extends to urologists, general surgeons, neurosurgeons, orthopedic surgeons, plastic surgeons, neurologists and internal medicine specialists.

12th Annual Postgraduate Course on Fractures and Other Trauma

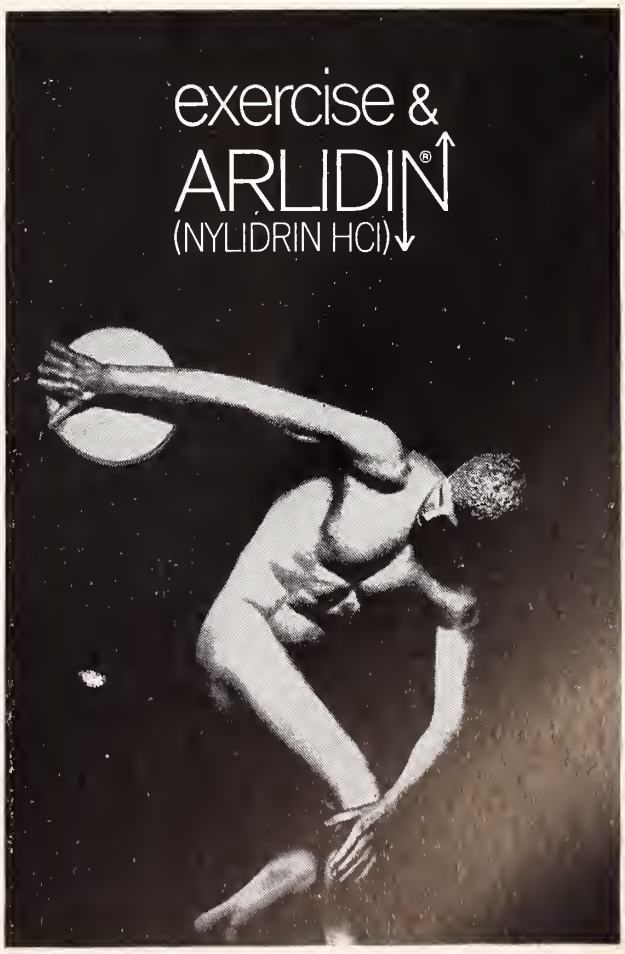
From April 17th to April 20th, the Chicago Committee on Trauma will present its Twelfth Postgraduate Course on Fractures and Other Trauma. It will attempt to cover many aspects of injuries. This includes abdominal, thoracic, genito-urinary, ophthalmologic, neurosurgical and vascular trauma, as well as musculoskeletal trauma.

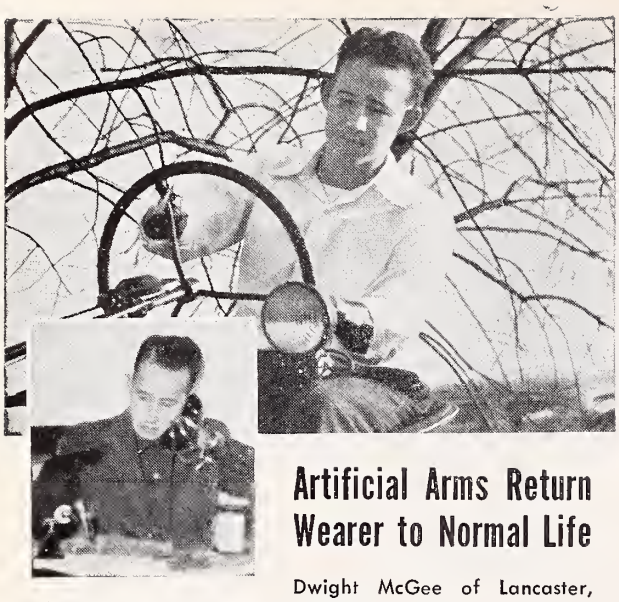
Guest speakers will include Dr. Patrick J. Kelly, Mayo Clinic, Rochester, Minn.; Dr. J. William Fielding, New York City; Dr. Adrian E. Flatt, Iowa City, Iowa; Dr. Francis C. Jackson, Pittsburgh, Pa.; and Dr. Paul M. James, Philadelphia.

On the evening of April 18, 1968, the Chicago Committee on Trauma will collaborate with the Chicago Metropolitan Chapter

Continued

My friend, Agnes Fuddy, recommended you, Doctor . . . she said you were a good listener!





Artificial Arms Return Wearer to Normal Life

Dwight McGee of Lancaster, Ohio, wearing two Hanger Arms, can write, shave, use a knife and fork, drive an automobile, and says he can do about anything an ordinary person can do. Hanger Arms are custom-made to fit the wearer's stump and his particular daily needs, and are carefully fitted by experienced Hanger fitters. Arms can be furnished with cosmetic or mechanical hand and hook.

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of the American College of Surgeons in presenting a program dealing with tornado injuries. This program will be moderated by Dr. Jackson.

Other panel discussions will be presented and will deal with athletic injuries and with thermal injuries. The latter subject will be presented by Dr. John Boswick, with panelists Allen R. Dimick, M.D., Birmingham, Ala.; Nelson H. Stone, M.D., Chicago, Ill.; and Charles Baxter, M.D., of Dallas, Texas.

In addition to the above mentioned out-of-town guest speakers, numerous doctors from Chicago will participate, including representatives from all five medical schools.

The four-day course will be given at the John B. Murphy Memorial Auditorium, 50 East Erie Street, Chicago 60611. The course is open to all doctors. Registration fee, which is $80.00, includes the chairman's reception one evening and luncheon at the Kungsholm Restaurant on one of the meeting days. Residents and interns will be admitted free upon presentation of a letter from their chief of service. The American Academy of General Practice gives credits to members who take the course. Registration can be accomplished by writing to James P. Ahstrom, Jr., M.D., Chairman, Twelfth Postgraduate Course, American College of Surgeons, 55 E. Erie St., Chicago, Illinois 60611. Reservations at one of the many nearby hotels should be made individually and separately.

VISIT A 19th CENTURY ONE MAN CLINIC

and the panorama of American History at Henry Ford Museum and Greenfield Village. See the office of Dr. Alonson Howard . . physician, surgeon, dentist, chemist, apothecary . . . the classical example of the country doctor. Plan a family adventure today. Stay at the Dearborn Inn, only 700 yards from the museum and its unmatched mechanical and fine arts collection. May we send our brochure.

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Postgraduate Course on "Clinical Dermatology" to be in Colorado in April

The University of Colorado announces a three-day postgraduate course in "Clinical Dermatology" to be held April 25-27 in Denver.

For further information and a detailed program, write to: The Office of Postgraduate Medical Education, University of Colorado School of Medicine, 4200 E. Ninth Ave., Denver, Colorado 80220.

20th Annual Joseph and Samuel Freedman Lectures in Radiology

Dr. Heinz S. Weens, Chairman, Department of Radiology, Emory University, Atlanta, Georgia, will deliver the 20th annual Joseph and Samuel Freedman Lectures in Diagnostic Radiology at the University of Cincinnati College of Medicine on Saturday and Sunday, April 6 and 7, 1968.

Radiologists desiring to attend are requested to write for further details to Dr. Benjamin Felson, Department of Radiology, Cincinnati General Hospital, Cincinnati, Ohio 45229.

First International Symposium On Dextrans Set for May 19-20

The first International Symposium on Dextrans will be held at Galveston Island, Texas on Sunday and Monday, May 19 and 20, 1968. Entitled Current Concepts of the Basic Actions of Dextrans and Their Clinical Application in the Cardiovascular and Related Fields, the symposium is co-sponsored by the Texas Heart Association, the Council on Circulation of the American Heart Association, the Postgraduate Education Division of the University of Texas Medical Branch, the University of Minnesota Medical School and the Georgia Institute of Technology — Biomedical Division.

Researchers from Europe and the United States who have carried out extensive research studies on the Dextrans for 20 years or more will participate in this important two-day symposium. Program planners advise that the major emphasis of the symposium will be placed on the use of Dextrans in the cardiovascular field.

Programs, advance registration, and hotel reservation forms for the Dextran Symposium may be obtained by writing or calling the Texas Heart Association, P.O. Box 25041, Houston, Texas 77005 — Area Code 713-JAckson 6-4194.

Two Postgraduate Courses Listed by Cleveland Clinic

Two postgraduate courses have been announced by the Cleveland Clinic. The first, "Psychiatry and General Medicine," will be offered April 17 and 18. The second, "Laboratory Aspects of Hematology" will be given April 24 and 25.

Further information and programs may be obtained by writing Director of Education, The Cleveland Clinic Educational Foundation, 2020 E. 93rd St., Cleveland 44106.

Fourth Postgraduate Rheumatic Diseases Symposium to be Held April 25

The fourth annual Postgraduate Symposium on Rheumatic Diseases, jointly sponsored by the University of Louisville School of Medicine and the Kentucky Chapter of the Arthritis Foundation, will be held on Thursday, April 25, in the Rankin Amphitheater, Louisville General Hospital, University of Louisville Medical Center.

The full day conference will be devoted to the systemic disorders involving connective tissue, the so-called "collagen" diseases. Topics to be considered will include: systemic lupus erythematosus, progressive systemic sclerosis, dermatomyositis, and other related disorders. Special emphasis will be given to new information and recent research.

Please address inquiries for additional information and a program to the Symposium Program Committee, Kentucky Arthritis Foundation, 209 Speed Building, Louisville, Kentucky. There will be no registration fee. ◄

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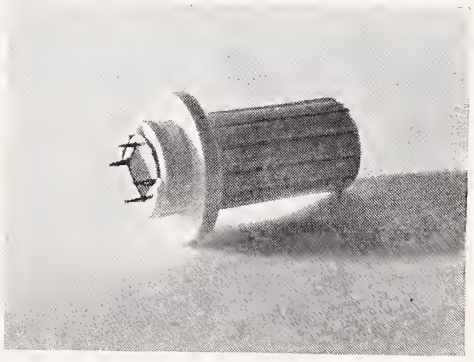
Make tuberculin testing routine with every physical examination.



TUBERCULIN, TINE TEST (Rosenthal)

Side effects are possible but rare: vesiculation, ulceration, or necrosis at test site. Contraindications: none, but use with caution in active tuberculosis. Available in 5's and 25's.

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Deaths

Franklin S. Crockett, M.D.

Dr. Franklin S. Crockett, 86, former president of the Indiana State Medical Association, died Jan. 20 in a nursing home at West Lafayette.

A native of Logansport, Dr. Crockett was graduated from the Medical College of Indiana in 1903. He founded the Arnett-Crockett Clinic at Lafayette in 1922 and was associated with the clinic until 1937. He practiced medicine in the Lafayette area 55 years before retiring in 1958.

Dr. Crockett served as a captain in the Army Medical Corps during World War I and had been a fellow of the American College of Surgeons since 1915. He served as president of the ISMA in 1932, was a director of Indiana Blue Shield in 1946-47 and was vice-president of the Tippecanoe Medical Society in 1956-57.

A founding member and diplomate of the American Board of Urology, Dr. Crockett was also vice-president of the American Medical Association in 1956-57; chairman of the ISMA Committee on Civic and Industrial Relations; a member of the AMA House of Delegates from 1929 to 1951; and was a founder and past chairman of the AMA Council on Rural Health. He was a Senior Member of ISMA, an Honorary Member of ISMA and a member of the 50-Year Club.

Victor P. Conforti, M.D.

Dr. Victor P. Conforti, 52, former member of the Vigo County Medical Society, died Jan. 19 at his home.

Graduated from the Duke University School of Medicine in 1940, Dr. Conforti was a former member of the staff of the Associated Physicians and Surgeons Clinic, Terre Haute.

William C. Fisher, M.D.

Dr. William C. Fisher, Evansville's first neurosurgeon, died Jan. 16 at the age of 59.

Dr. Fisher, an Evansville specialist for 22 years, was graduated from Johns Hopkins University in 1934. He was a member of the medical staffs of Deaconess, Baptist and St. Mary's Hospitals, in addition to the Evansville State Hospital. He was a past-president of the Vanderburgh County Medical Society and was appointed in 1962 to a four-year-term on the City-County Health Board. In 1958, he served as president of the Baptist Hospital staff.

Lloyd E. Foltz, M.D.

Dr. Lloyd E. Foltz, 64 years old, a Brownsburg physician, died Jan. 23 at his home.

An Indianapolis native, Dr. Foltz had practiced in Brownsburg since 1931. He was graduated from the Indiana University School of Medicine in 1930 and was a staff member at Methodist Hospital in Indianapolis. He was a member of the Hendricks County Medical Society.

Thad T. Richardson, M.D.

Dr. Thad T. Richardson, a physician in Indianapolis for 18 years, died Jan. 15 at his home. He was 51.

Graduated from the I.U. School of Medicine in 1946, Dr. Richardson practiced optometry for a brief time at Portland before coming to Indianapolis. In World War II, he served in the Air Force in the Caribbean area and was discharged as a major. He was a member of the Marion County Medical Society.

Justice F. Wynn, M.D.

Dr. Justice F. Wynn, former Evansville surgeon, died Jan. 13 at the age of 72.

Dr. Wynn was born near Providence, Ky. He was graduated from the University of Cincinnati School of Medicine in 1922 and delivered nearly 600 babies by caesarean section. He was a member of the staff of St. Mary's hospital, the local school board and the Vanderburgh County Medical Society. He was also a Senior Member of ISMA. ◄

I.U. School of Medicine Postgraduate Courses (Division of Postgraduate Medical Education)

DATE	COURSE TITLE	LOCATION	COURSE DIRECTOR	A.A.G.P.* HOURS
March 27	Practical Management of Pulmonary Diseases	I.U.M.C.	Roy Behnke, M.D.	8
April 24	Emotional Problems in Family Practice	Dunn Memorial Hospital, Bedford	Donald Kerr, M.D.	5
May 15	Orthopaedics for the General Practitioner	I.U.M.C.	James Wray, M.D.	8

* Prescribed hours credit by the American Academy of General Practice

Annual Meeting Dates of Professional Medical and Allied Organizations

AMERICAN MEDICAL ASSOCIATION ANNUAL CONVENTION
Date June 16-20, 1968
Place San Francisco, Calif.

NORTHERN INDIANA PSYCHIATRIC SOCIETY
Date Fourth Wednesday of every month, September through June
Place For location and program, inquire Beatty Memorial Hospital, Westville

INDIANA NEUROPSYCHIATRIC ASSOCIATION
Date Second Wednesday of the month, October through May, excluding December
Place The Athenaeum, Indianapolis

INDIANA ROENTGEN SOCIETY
Date May 5, 1968
Place Indianapolis

AMERICAN COLLEGE OF SURGEONS, INDIANA CHAPTER
Date May 17-18, 1968
Place Stouffer Inn, Indianapolis

INDIANA STATE ASSOCIATION OF MEDICAL ASSISTANTS
Date May 3-5
Place Leland Motor Inn, Richmond

INDIANA ACADEMY OF OPHTHALMOLOGY AND OTOLARYNGOLOGY
Date May 1-2, 1968
Place Culver Inn, Culver

INDIANA STATE MEDICAL ASSOCIATION CONVENTION
Date October 14-17, 1968
Place Fort Wayne

INDIANA PUBLIC HEALTH ASSOCIATION
Date April 30-May 1, 1968
Place Howard Johnson's Motor Lodge, Indianapolis

INDIANA SOCIETY OF ANESTHESIOLOGISTS
Date May 25-26, 1968
Place Marott Hotel, Indianapolis

INDIANA STATE DENTAL ASSOCIATION
Date May 19-20, 1968
Place Murat Theater, Indianapolis

★

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Tuinal helps wakeful patients fall asleep fast, stay asleep all night.

Indications: Tuinal is indicated for prompt and moderately long-acting hypnosis. It is not suitable for continuous daytime sedation.

Contraindications: Barbiturates should not be administered to anyone with a history of porphyria, nor should they be given in the presence of uncontrolled pain, because excitement may result.

Warning: May be habit-forming.

Precautions: Tuinal should be used cautiously in patients with decreased liver function, since prolongation of effect may occur.

Adverse Reactions: Idiosyncrasy, such as excitement, hangover, or pain, may appear. Hypersensitivity reactions occur in some patients, especially in those with asthma, urticaria, or angioneurotic edema.

Overdosage: C.N.S. depression. Symptoms—Depression of respiration and of superficial and deep reflexes, slight constriction of the pupils (in severe poisoning, dilation), decreased urine formation, lowered body temperature, coma. Treatment—Symptomatic and supportive (gastric lavage; intravenous fluids; maintenance of blood pressure, body temperature, and adequate respiration). Dialysis may speed removal of barbiturates from body fluids.

Dosage: 50-200 mg. (¾-3 grains) at bedtime.

[031767]

Additional information available to physicians upon request.
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INDIANA STATE BOARD OF HEALTH

MONTHLY REPORT — January, 1968

Disease	Jan. 1968	Dec. 1967	Nov. 1967	Jan. 1967	Jan. 1966
Animal Bites	253	400	616	351	288
Chickenpox	476	505	422	442	651
Conjunctivitis	37	59	36	68	93
Diphtheria	0	0	0	0	0
Dysentery, Unspecified	62	124	40	70	100
Gonorrhea	391	461	581	336	377
Impetigo	64	120	156	90	70
Infectious Hepatitis	11	43	69	28	39
Infectious Mononucleosis	57	89	82	52	62
Influenza	9943	2944	1005	654	1774
Measles					
Rubeola	88	35	26	96	345
Rubella	20	27	21	38	124
Meningitis, Meningococcal	4	1	5	3	4
Meningitis, Other	3	1	11	2	6
Mumps	416	337	314	431	388
Pertussis (whooping cough)	8	7	18	14	0
Pneumonia	246	204	189	237	289
Poliomyelitis	0	0	3	0	0
Streptococcal Infections	675	692	697	596	768
Syphilis					
Primary & Secondary	19	28	28	5	6
All Other Syphilis	50	106	92	60	86
Tinea Capitis	12	8	21	10	29
Tuberculosis (active)	40	88	100	81	93

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Edgar C. Stuntz, M.D. 743-1809
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Alfred R. Heasty, M.D.

Robert K. Jones, Ph.D.
Clinical Psychologist

Mrs. Margaret Keedy, A.C.S.W.
Psychiatric Social Worker

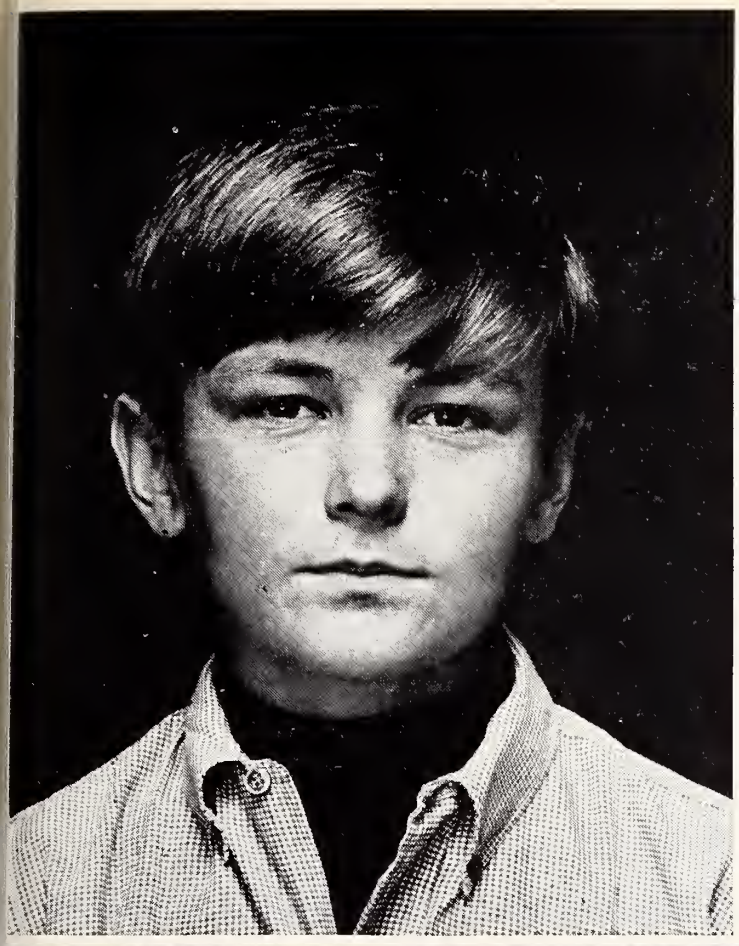
Elizabeth J. Snyder, R.N.
Director of Nursing Service

James Jones, B.P.E.
Director of Activity Therapy

Donald R. Kinzer, Hospital Administrator

Admissions are arranged through referral to any active staff psychiatrist.

All general medical and surgical specialties in the community are available through physicians on the open consulting staff.



How to turn a 14-year-old boy into a hardened criminal.

Just forget your keys in your car one day.

Tempt some fourteen-year-old boy into going for a joyride.

Oh, he could be a good kid — just weak.

And taking your car might be the first time he's ever broken the law.

But the minute he hops behind that wheel and turns the key, his life may be ruined.

He'll drive around for a few hours, endangering the life of every man, woman and child who crosses his path.

He might be caught the very first time he takes a car. Or if he's not caught by the police he'll leave your car somewhere and decide to do it again, and again, until the day he does get caught.

Teen-agers steal more than 1,000 cars every day.

The U. S. Department of Justice and your state and local law-enforcement agencies are concerned.

They know that taking a car for a joyride is just the first step.

Our prisons are filled with men who started out this way. They went on to become thieves, muggers, and even killers.

You can do something to help solve this terrible problem.

Whenever you get out of your car, even for a second, take your keys. Lock your car.

Every time you do this you may keep a good boy from going bad.

ADVERTISING COUNCIL

Don't help a good boy go bad. Lock your car. Take your keys.

County, District News

Bartholomew-Brown

New officers of the Bartholomew-Brown County Medical Society are: Drs. Forest Daugherty, president; Brockton Weisenberger, vice-president and C. David Ryan, secretary-treasurer. All of the new officers are from Columbus.

Carroll

The Carroll County Medical Society has elected the following as its new officers: Drs. Marilyn L. Wagoner, Burlington, president; Carlos E. Amaya, Flora, vice-president and Robert M. Seese, Delphi, secretary-treasurer.

Cass

Dr. William Sheeley, Mental Health Commissioner, spoke on "Comprehensive Community Mental Health Centers" at the January 8 meeting of the Cass County Medical Society. Other speakers included M. W. Meyer, Ed.D., Division of Planning and Evaluation; Mrs. Marjorie Eisinger, executive secretary of the Lafayette, Ind. Regional Planning Committee and Dr. Heracleo Matheu, acting superintendent of Longcliff State Hospital, Logansport.

Daviess-Martin

The 1968 officers of the Daviess-Martin County Medical Society will be: Drs. Arthur G. Blazey, president; Charles R. Farmer, vice-president and Hamlin B. Lindsay, secretary-treasurer. All of the new officers are from Washington.

Dearborn-Ohio

Dr. Robert Ausdenmoore, a pediatric allergist from Cincinnati, spoke on "Management of Allergy in Children" at the January 4 meeting of the Dearborn-Ohio County Medical Society.

DeKalb

Newly-elected officers of the DeKalb County Medical Society are: Drs. John C. Harvey, Auburn, president; Benjamin R. Graber, Waterloo, vice-president and C. Bishop Hathaway, Auburn, secretary-treasurer.

Delaware-Blackford

Dr. Glynn A. Rivers is the new president; Dr. Jack M. Walker the new vice-president; Dr. Richard N. Philbert the new secretary and Dr. Robert K. Gibson the new treasurer of the Delaware-Blackford County Medical Society. All of the officers are from Muncie.

Dubois

The 1968 president of the Dubois County Medical Society is Dr. John P. Salb, Jasper. Assisting him will be Dr. H. G. Backer, Ferdinand, president-elect and Dr. Edward J. Ploetner, Jasper, secretary-treasurer.

Elkhart

Officers of the Elkhart County Medical Society for the coming year will be: Drs. Philip G. Bowser, Goshen, president; James Miller, Wakarusa, vice-president and Page E. Spray, Elkhart, secretary-treasurer.

Fayette-Franklin

The 1968 officers of the Fayette-Franklin County Medical Society are: Drs. B. W. Sanders, Connersville, president; Perry Seal, Brookville, vice-president and J. L. Steinem, Connersville, secretary-treasurer.

Grant

Dr. J. C. Jarrett is the new president of the Grant County Medical Society. Assisting him will be Drs. Robert D. Cunningham, president-elect and Robert G. Young, secretary-treasurer. All of the new officers are from Marion.

Hamilton

Dr. Gerald Morris moderated a C.P.C. discussion by telephone with Methodist Hospital at the January 9 meeting of the Hamilton County Medical Society.

Hancock

Officers of the Hancock County Medical Society for the coming year will be: Drs. John J. Farrell, Greenfield, president; Robert Cagle, New Palestine, vice-president and Joseph A. Miller, Oaklandon, secretary-treasurer.

Harrison-Crawford

Dr. Carl Dillman is the new president; Dr. David Dukes the new vice-president and Dr. Richard A. Jordan the new secretary-treasurer of the Harrison-Crawford County Medical Society. All are from Corydon.

Hendricks

Re-elected for another term as officers of the Hendricks County Medical Society are: Drs. Eli Coats, Indianapolis, president; James Black, Brownsburg, vice-president and Carl L. Heinlein, Danville, secretary-treasurer.

Henry

The newly-elected president of the Henry County Medical Society is Dr. John E. Fisher. Other officers will be: Drs. Guido P. Wilhelm, vice-president and Phyllis Grant, secretary-treasurer. All are from New Castle.

Jay

The Jay County Medical Society has elected the following as its new officers: Drs. Ralph M. Steffy, Portland, president and Elizabeth Tate, Dunkirk, secretary-treasurer.

LaGrange

Dr. Michael O. Mellinger, LaGrange, is the new president; Dr. Dean L. Mattox, Howe, the new vice-president and Dr. Allen S. Martin, Shipshewana, the new secretary-treasurer of the LaGrange County Medical Society.

LaPorte

The LaPorte County Medical Society new officers are: Drs. William E. Wolf, LaPorte, president; Charles K. Liddell, Michigan City, vice-president and James J. J. Sprecher, LaPorte, secretary-treasurer.

Lawrence

Dr. George W. Sorrells has been elected president of the Lawrence County Medical Society and Dr. Reid C. Crosby has been re-elected secretary-treasurer. Both are from Bedford.

Madison

The Madison County Medical Society has elected Dr. John R. Wagoner president; Dr. David J. Beckles, vice-president and Dr. William M. Stinson secretary-treasurer. All of the new officers are from Anderson.

Miami

Dr. John Moore, an obstetrician and gynecologist from Kokomo, spoke on "2° Amenorrhea" at the January 9 meeting of the Miami County Medical Society.

Morgan

Dr. George Ostheimer, Martinsville, has been elected president of the Morgan County Medical Society. Dr. Maurice A. Turner, Martinsville, will be vice-president and Dr. Oliver Wilson of Morgantown will be secretary-treasurer.

Newton

Re-elected officers of the Newton County Medical Society for the coming year are Dr. John C. Parker, Goodland, president

and Dr. Arthur Schoonveld, Brook, secretary-treasurer.

Orange

New officers of the Orange County Medical Society are: Drs. Charles X. McCalla, Paoli, president; S. J. Encinas, English, vice-president and Phillip T. Hodgin, Orleans, secretary-treasurer.

Owen-Monroe

The new president of the Owen-Monroe County Medical Society is Dr. Brad Bomba; the new vice-president is Dr. John Cochrane; the new secretary is Dr. Philip Karsell and the new treasurer is Dr. Louis Byrne. All of the new officers are from Bloomington.

Perry

Dr. Robert G. Gilbert, Dr. Gene E. Ress and Dr. Robert A. Ward will serve as president, vice-president and secretary-treasurer, respectively, of the Perry County Medical Society for 1968. All were re-elected and are from Tell City.

Porter

The Porter County Medical Society officers for 1968 will be: Drs. John Read, Chesterton, president; Stewart Wu, Valparaiso, vice-president and Milton R. Carlson, Portage, secretary-treasurer.

Putnam

Dr. James B. Johnson is the new president; Dr. James Lett the new vice-president and Dr. Anne S. Nichols the secretary-treasurer of the Putnam County Medical Society for the coming year. All of the officers are from Greencastle.

Scott

Officers of the Scott County Medical Society for next year are: Drs. Ignacio B. Castro, Jr., president and Jesus C. Bacala, secretary-treasurer.

Steuben

Dr. Mary H. Cameron, Angola, will serve as president of the Steuben County Medical Society for the coming year. Dr. Richard W. Artz will serve as secretary-treasurer.

Sullivan

The Sullivan County Medical Society has elected Dr. Glen McClure, Sullivan, president; Dr. Joe Dukes, Dugger, vice-president and Dr. J. S. Brown, Carlisle, secretary-treasurer.

Tipton

The Tipton County Medical Society's new officers are: Drs. Robert L. Haller, Kempton, president; Harold Ericson, Windfall, vice-president and Albert E. Stouder, Kempton, secretary-treasurer.

Vanderburgh

Application of the new Indiana University School of Medicine plan for continuing medical education throughout the state was discussed by Dr. Robert B. Stonehill, professor of medicine at the I.U. Medical School, at the January 9 meeting of the Vanderburgh County Medical Society.

Vigo

Newly-elected president of the Vigo County Medical Society is Dr. John Freed. Other new officers are: Drs. Fred Dierdorf, vice-president and Robert L. Meissel, secretary-treasurer. All of the new officers are from Terre Haute.

Wayne-Union

Officers of the Wayne-Union County Medical Society for the coming year will be: Drs. John D. Stepleton, president; John H. Mader, vice-president; John R. Dehner, secretary and C. G. Clarkson, treasurer. All of the new officers are from Richmond.

Wells

Dr. Charles Caylor is the new president; Dr. Donald Meier the new vice-president and Dr. R. D. Willard the new secretary-treasurer of the Wells County Medical Society. All are from Bluffton.

White

The 1968 officers of the White County Medical Society are: Drs. W. M. Dickerson, president; Max L. Fields, vice-president and M. Ali Jehanyar, secretary-treasurer. All of the new officers are from Monticello. ◄

Association News

EXECUTIVE COMMITTEE

Jan. 13, 1968

Present: Ralph V. Everly, M.D., chairman, Burton E. Kintner, M.D.; G.O. Larson, M.D., Patrick J. V. Corcoran, M.D.; Lowell H. Steen, M.D., Lester H. Hoyt, M.D., Malcolm O. Scamahorn, M.D.

Frank B. Ramsey, M.D., editor of *The Journal*, Robert E. Robinson, attorney, and James A. Waggener, executive secretary.

Membership Report

Number of members as of December 31, 1966		4,409
1967 members as of December 31, 1967:		
Full dues paying	3,893	
Residents and interns	115	
Council remitted	54	
Senior	308	
Honorary	3	
Military	49	
Total 1967 members as of December 31, 1967		4,422
Number of members as of December 31, 1966		4,409
Gain over last year		13
Number of AMA members as of December 31, 1967		4,237
Total 1966 AMA members as of December 31, 1966		4,286
Loss over last year		49
1967 AMA members:		
Dues paying	3,709	
Exempt, but active	528	
	4,237	
Number who have paid state dues but not AMA dues as of December 31, 1967		185

Headquarters Office

The secretary reported on the results of the computerized billing for dues and pointed out at the time of the meeting, some 28+% were in and that those who were paying the voluntary contribution was approximately 52%.

A letter from the Dearborn-Ohio County Medical Society concerning the collection method for dues was read and on motion of Drs. Steen and Corcoran, the president is to write the Dearborn-Ohio Society a letter.

A report of the Medical Exhibitors Association on the 1967 annual meeting of the association was reviewed for the information of the committee.

A memo agreement concerning comprehensive health planning was deferred inasmuch as it would come before the Council.

The staff report on Comprehensive Health Planning was also deferred to the Council meeting.

Treasurer's Office

The treasurer's report was approved on motion of Drs. Hoyt and Steen.

The treasurer discussed the annual audit and the investment account was discussed by the president-elect. On motion of Drs. Steen and Kintner, the Executive Committee voted to refer to the Council a recommendation that 25% of the association's bonds be sold and reinvested in stocks or mutual funds.

Organization Matters

The request of the Commission on Medical Education and Licensure to cooperate in the survey on medical education with Indiana University was reviewed and on motion of Drs. Larson and Kintner, the association will offer to print the materials as our contribution to the survey.

The secretary read a report on the storage locations of disaster hospitals which was taken as a matter of information and the secretary was instructed to make this report available to the Council Committee on Emergency Medical Services.

A letter from a member addressed to the Continental Casualty Company thanking them for the prompt handling of his claim was read for the information of the committee.

An article in *The Indiana Nurse* concerning the training of pharmacists and Indiana University School of Medicine was reviewed for the information of the committee and on motion of Drs. Steen and Kintner, the president is requested to write a letter of information to *The Indiana Nurse* to clarify this matter.

Renewal of the annual contribution to the Indiana Youthpower Conference was approved on motion of Drs. Larson and Steen.

A letter from the Illinois State Medical Association concerning their intent to run Doctor Bornemeier for the office of president-elect of the AMA in 1969 was read for information of the committee.

A letter from the Massachusetts Medical Society announcing that they plan to place in nomination the name of Donald R. Hayes of Springfield, Illinois for election to the Board of Trustees of the AMA was read for the information of the committee.

A survey on state medical auxiliaries made by the Maryland Medical Society was read for the information of the committee.

Renewal of membership in the Central Indiana Better Business Bureau for the year 1968 was approved on motion by Dr. Steen and taken by consent.

Commentary in *The Blue Shield* concerning Dr. Francis L. Land's recommendation before their annual program conference was read for the information of the committee.

Correspondence from the Indiana State Association of Medical Assistants seeking the approval of the Executive Committee for certain proposed changes in their By-laws was reviewed and by consent, the proposed change in their Constitution in Article III, concerning their Advisory Committee, was disapproved. The president, the chairman of the Executive Committee and our legal counsel are to study this proposed change and write a letter opposing this change which would eliminate the Executive Committee of ISMA as their Advisory Committee.

The proposed change in Article VIII was approved on motion of Drs. Larson and Corcoran. The proposed change in Article VI was approved on motion of Drs. Larson and Kintner. The proposed change in Article VII was approved on motion of Drs. Larson and Steen. The increase in dues was felt to be a matter for local determination but the committee approved and it was taken by consent.

The memo concerning the meeting of the Indiana Regional Medical Program Advisory Group was reviewed for the information of the committee.

A letter from Indiana Health Careers concerning the forthcoming meeting on March 8 was reviewed and on motion of Drs. Corcoran and Steen, the secretary is to notify this organization that Doctor Hoyt, currently on their board of directors, should be listed as representing the Indiana State Medical Association and we are to recommend Dr. Mary B. Backer as a representative of the ISMA on the Professional Advisory Council.

Changes in the Medicare law were reviewed for the information of the committee.

A letter from Dr. Norman Booher, chairman of the Commission on Voluntary Health Agencies requesting permission to print and distribute to the membership placards listing the voluntary agencies who have met the criteria of the Indiana State Medical Association was referred to the Council for decision on motion of Drs. Larson and Corcoran.

Legislation

The notice of the joint Liaison Com-

mittee on Veterans Affairs meeting to be held on January 24th was read for the information of the committee.

Annual Convention

A letter from Doctor Burkhardt concerning reimbursement for sporting events costs was reviewed and inasmuch as the amount exceeded the budget, the reimbursement was approved on motion of Drs. Steen and Kintner with instruction that the committee receive a strong protest of this over-expenditure of funds and that the 1968 convention budget will be held strictly to the allowance made in the budget.

A letter from the A. H. Robins Company offering a plaque for the association to use as an award was turned down on motion by Dr. Steen and taken by consent.

Several matters concerning the 1968 meeting to be held in Fort Wayne were reviewed by the committee.

The Journal

A letter from a South Bend physician criticizing the association for the acceptance of cigarette advertising in the advertising pages of *The Journal* was reviewed and on motion of Drs. Larson and Corcoran, the Executive Committee is to recommend to the Council that the Council take steps to refuse cigarette advertising in *The Journal* and in the exhibits at the annual meeting.

A request for advertising space for the Indiana College of Business Technology was turned down on motion of Drs. Corcoran and Steen.

The request of the Associates Investment Company to carry advertising in *The Journal of the ISMA* was approved by consent.

New Business

The request of International Travel Advisors, Inc. for consideration of a group travel program to the Orient was disapproved on motion of Drs. Steen and Kintner.

A letter from the AMA inviting the ISMA to send a representative to meet with the Council on Legislative Activities at its meeting in Chicago on January 20th was read and on motion of Drs. Larson and Steen, Dr. Dwight Schuster is to be requested to represent the association at this meeting.

The Congress on Medical Education of the AMA is to be held in Chicago on February 11-12 and by consent it was agreed that the chairman of the Commission on Medical Education be authorized to represent the association at this meeting.

By consent it was agreed that the annual trip to visit the Indiana delegation in Congress would be made by the Executive Committee in conjunction with the meeting of the American Medical Political Action Committee, which is to be held in Washington, D.C. on March 9-10.

There being no further business the committee adjourned, to meet again at 4:00 p.m., Saturday, February 24th.

About Our Cover

Daffodils blossoming and baby lambs, like the visit of the first robin, are sure signs of spring.

Buds begin to open and tulips, hyacinths, lilac, violets and lilies of the valley soon will add their beauty to the glorious warm weather.

Spring also marks the disappearance of heavy winter clothing and the appearance of brightly colored spring and summer outfits. The house needs its annual poking, pushing and "powdering" as spring housecleaning begins and trotting athletes appear everywhere.

These harbingers of spring also bring to mind thoughts of district meetings, the 500 Mile Race, boating, the return of cook-outs and plans for the annual vacation.

To the doctor, however, spring beings more "tender" gifts—like broken bones, hay fever, insect and dog bites, splinters, cuts and bruises. It is a busy time for all concerned.—J.F.S.

THE COUNCIL

January 14, 1968

The Council of the Indiana State Medical Association convened for its January meeting at 9:00 a.m., Sunday, January 14, 1968, in the headquarters office, 3935 North Meridian Street, Indianapolis, with Dr. Lowell H. Steen, the chairman, presiding.

Roll call showed the following present:

Councilors:

Second District—Joe Dukes, Dugger, Betty Dukes, Dugger, alternate

Fourth District—Robert M. Reid, Columbus Jack E. Shields, Brownstown, alternate (also AMA delegate)

Fifth District—Wilbert McIntosh, Riley C. M. Schauwecker, Greencastle, alternate

Sixth District—Stephen D. Smith, Knightstown; Frank H. Green, Rushville, alternate (also AMA delegate)

Seventh District—Albert M. Donato, Indianapolis

Eighth District—Donald R. Taylor, Muncie

Ninth District—Peter R. Petrich, Attica

Tenth District—Lowell H. Steen, Whiting Herman Wing, Gary, alternate

Eleventh District—Lowell J. Hillis, Logansport; James A. Harshman, Kokomo, alternate

Twelfth District—William R. Clark, Fort Wayne; Frederic L. Schoen, Fort Wayne, alternate

Thirteenth District—Otis R. Bowen, Bremen George B. Gattman, Elkhart, alternate

Officers:

G. O. Larson, LaPorte, president

Patrick J. V. Corcoran, Evansville, president-elect

Lester H. Hoyt, Indianapolis, treasurer

Malcolm O. Scamahorn, Pittsboro, assistant treasurer

Journal:

Frank B. Ramsey, Indianapolis, editor

Executive Committee:

Ralph V. Everly, Indianapolis, chairman

Burton E. Kintner, Elkhart, member

Guests:

Harold C. Ochsner, Indianapolis, AMA delegate

Kenneth O. Neumann, Lafayette, AMA alternate delegate

Maurice E. Glock, Fort Wayne, AMA alternate delegate

Dwight W. Schuster, Indianapolis, AMA alternate delegate

A. C. Offutt, Indianapolis, State Health Commissioner

Lester D. Bibler, Indianapolis, AMA Trustee, and chairman, Student Loan Committee

Glen V. Ryan, Indianapolis, chairman, Blue Shield Board of Directors

Robert Yoho, Indianapolis, State Board of Health

Charles H. Aust, Fort Wayne, chairman, Convention Arrangements

Marvin E. Priddy, chairman, Commission on Special Activities

W. J. Brown, Chicago, AMA field representative

Staff:

Robert Robinson, attorney

Robert J. Amick, field secretary

Howard Grindstaff, field secretary

Kenneth W. Bush, administrative assistant

James A. Waggener, executive secretary

The following were absent:

Councilors:

First District—Gilbert M. Wilhelmus, Evansville

Third District—Donald M. Kerr, Bedford E. L. Wallace, New Albany, alternate

Seventh District—John O. Butler, Indianapolis, alternate

Eighth District—Paul W. Sparks, Winchester

Ninth District—Clarence G. Kern, Lebanon, alternate

On motion of Drs. Petrich and Hillis, minutes of the meetings held on October 9, 10 and 12, 1967, were approved as printed in the December, 1967, *Journal*.

Reports of Councilors

1968 district meetings were reported scheduled as follows:

First District—Evansville, May 23, 1968

Second District—Bloomington, June 6, 1968

Third District—New Albany, May 15, 1968

Fourth District—.....

Fifth District—Terre Haute, ...

Sixth District—Connersville, second or third Wednesday in May

Seventh District—Franklin, ...

Eighth District—Anderson, June 5, 1968

Ninth District—Monticello, May 16, 1968

Tenth District—Whiting, April 10, 1968

Eleventh District—Delphi, September 18, 1968

Twelfth District—Angola, May 15, 1968

Thirteenth District—....., September 18, 1968

Reports of Officers

DR. G. O. LARSON, President: Mr. Chairman, members of the Council: Driving down here this morning I couldn't help but think of an incident in which there were two cars driving along on a real slippery, snowy road. The first one was occupied by a drunk. He was weaving back and forth and missed one car after another by the skin of his teeth. The second car was occupied by a preacher. He became so fascinated in watching this drunk escape destruction so many times he didn't pay much attention to his own driving. He ran across a slippery spot in the road, skidded to the edge of the road and way down in the ditch. The drunk saw what was happening, stopped his car, ran back and yelled down, "Hello there, are you all right?"

The voice of the preacher came up, "Yes, I'm safe, the Lord is with me."

The drunk yelled back, "You better let him ride with me, the way you drive you're apt to kill him."

There are two things I want to report on briefly. Four or five of us attended the First National Conference on Health Care for the Poor in Chicago. It was held a few weeks ago. It's been my privilege to attend a number of these conferences, both at the state level and AMA level. Over the past few years I have heard one officer after another of our association report on these conferences. I used to wonder sometimes at the reports they would give—brainwashing was one word which was used to describe them. And there was always a little bit of doubt in my mind until recently. I came away from this conference thoroughly convinced that the opinions which I have heard some of our past-presidents and other officers give after attendance at these meetings was in no way exaggerated. The program was an excellent program. There were outstanding individuals from government, labor, the medical profession, education, who gave some remarkable addresses.

Max Rafferty, whom you know is Super-

intendent of Public Instruction in the state of California, and who probably will run for the U.S. Senate the next election, gave one of the most outstanding addresses I have heard. He always does, every time I hear him. Sargent Shriver was there, and a number of outstanding men of our own profession.

An incident occurred in the middle of the afternoon, on the second day of the conference, during the time when the Surgeon General of the United States was addressing the conference, and I suspect there were perhaps 350 or 400 doctors from all over the United States in attendance. Suddenly the back door opened and I don't know how many hippies came in, but I would judge somewhere between one and two hundred. All of them were carrying placards. They marched in, down the center aisle and down the two outside aisles of the meeting room, up onto the platform, surrounding the speaker, the Surgeon General of the United States. Milford Rouse was chairing the meeting and he did a beautiful job trying to quiet them down. They wouldn't listen. Finally they were given five minutes to make a statement.

This statement, indicative of the vitriolic abuse which the medical profession has to take was, as usual, reported in the news media beautifully. Many of the other things, the good things we do, never see the light of day as far as the news media are concerned.

Now, it would be very easy to pass this incident off, stating that it was just one of those things that happen. In this instance, however, it would seem that it was well planned, because right in the middle of the group, there were television cameras complete with crews who televised the whole thing.

The other point I would like to make concerns the content of some of the papers which were presented. Repeated emphasis was given to the alleged fact that the practice of medicine in the United States is in a crisis and that the whole system by which medical care is delivered to the public needs to be reconstituted.

Now, I should like to refer to the statement Dr. Lowell Hillis made last evening, a statement with which I feel most of you agree. Dr. Hillis suggested that it is high time we did some serious thinking about where we are going and how we are going to get there; that we should outline our true objectives,—the ones to which we must pay attention if the free practice of medicine is to survive. This thought has also been expressed by the chairman of the Council. I would encourage the Council to take favorable action, and soon.

The other incident I want to report was very pleasant. Two days after Christmas, the Indiana University School of Medicine entertained many of the 178 students who are already signed up to become the freshman class next year at I.U. Medical School, and their parents. This, I understand, is a regular feature that Indiana University Medical School has carried out for the past 9 or 10 years. Out of the 178 who are signed up to enter medical school next fall, 160 were there, most of them with their parents. I was highly honored to be asked to speak to them. I hope I didn't disgrace you gentlemen by what I said. There were a number of them who were very kind in what they said to me afterwards. I enjoyed that experience as much as anything I have done in a long long time. I think that's all I have to say this morning, Mr. Chairman. Thank you.

DR. PATRICK J. V. CORCORAN, President-elect: Mr. Chairman: I, too, am going through a time of self-development. As president-elect I don't intend to spend a lot of time talking. I regard my position as that of an apprentice who is in a period of gestation. You don't learn very much when you're doing the talking.

But, I would like to have you bear with me so that I may share some thoughts of mine in the hope that by subsequent dialogue you can help me to decide if they're valid.

At the Houston meeting, the AMA defined its objectives rather at length—I think it took two pages to list a number of points. For my part, I've been trying in my own mind to re-define medicine's role—organized medicine's role. As I see it, we have at least four major fields in which we should be active:

The first that comes to mind is our professional role: when we speak for the profession itself. These primary professional pronouncements, of course, deal with matters in which we have specialized, authoritative knowledge, which we should share, whether in the field of public health or any other medical matter on which we should spontaneously and vigorously, on our own initiative, take a stand. From that, of course, there's a corollary that I see—and it is that other professions should have the deference from us that we expect them to give us when we speak medically. For example, those in the legal profession, or in the public relations field, economists and others should be listened to by us when they speak in their primary role. We should take their help in a reciprocal manner.

And then there's a second major category which deals with matters of our own self interest, whether having to do with personal economic well-being or our convenience or our prestige or our continuing education. In matters such as these we should be candid and when we take a position that deals with our personal or group interests, we shouldn't be coy about it. The public and those who are interested will be much more receptive to our taking this attitude. As I understand, some of the younger ones say "Tell it as it is!" And we should do it. I have referred previously to what I call the three E's: Ethics, Economics and Emotions. We should justify any stand we take with the proper "E."

And then there's the third role. This has to do with socio-economics. I think we've been preoccupied with this very much but the new crises will probably come in somewhat different forms and the biggest one that now confronts us, in my opinion, will be the *delivery* of health care. We're going to have to face up to this and take advantage of the new techniques, whether we like them or not, and adapt them to the best of our ability.

And then finally, I believe we have, as a profession, a civic role. This is out of proportion to our numerical strength in the community. We are a learned profession and people do have respect for us, certainly as individuals. Not only should we participate in such things as fund raising and civic betterment, but I think there are a lot of other things that we should do as doctors. We should really and truly be *teachers* and leaders. We should speak up for what is good. Dr. Rouse, at the Houston meeting, spoke of this—the moral role. I think the time is very right. There are

many things that we can speak on—not only air pollution, auto safety and the like, but other matters like violence, (whether real or whether portrayed in entertainment), pornography and the permissive morality of our age. As physicians I think we can stand up and speak up for what is good and for what is right and I believe that benefits will redound to us as well as to our fellow citizens. Thank you.

DR. LESTER H. HOYT, treasurer, reported that net cash and investments as of December 31, 1967, totaled $173,298.52, with $20,967.81 obligated, leaving a working cash balance of $152,330.71 in the General Fund.

Summary of all funds, December 31, 1967:

	Cash	Investment	Total
General Fund	44,834.31	128,414.21	173,248.52
Journal Fund	2,717.79	-	2,717.79
Medical Defense Fund	326.40	30,000.00	30,326.40
Building Fund	3,429.23	-	3,429.23
Building Fund-Auxiliary Donation	-	3,863.18	3,863.18
Student Loan Fund (old)	916.23	11,293.92	12,210.15
Kitchen Fund	-	3,333.35	3,333.35
Total All Funds	$52,223.96	$176,904.66	$229,128.62

On motion of Drs. Hoyt and Taylor, the report of the treasurer was adopted.

Dr. Hoyt summarized briefly the annual audit, prepared by George S. Olive and Company, for the fiscal year ending September 30, 1967, saying the general operation of the association was in the black for the year, with balances as follows: General Fund, $20,000.00 and Building Fund, $32,000.00. *The Journal* operation is transferred out at the end of each year. *The Journal* was in the black as of the end of the year. We started the year with $36,000.00 in the Medical Defense Fund and ended with $32,000.00. The Medical Dependents' fund went from $70,000.00 to $75,000.00."

On motion of Drs. Hoyt and Clark, the Council approved the audit.

Dr. Hoyt also reported the association has $20,000.00 in Treasury bonds maturing in 1972, at 2½% interest, with a present market value of $17,750.00, and $60,000.00 maturing in 1983, bearing 3.25% interest, with a market value now of about $48,000.00. As of December 31, 1967, the balance of the association's money was in checking and savings accounts.

DR. FRANK B. RAMSEY, editor of *The Journal*: Mr. Chairman, members of the Council: I have the financial report of *The Journal* for the last quarter in which we came out $161.00 on the good side. This is about right since December is a very large issue, being devoted to cleaning up everything for the entire calendar year, therefore, it is always larger.

I might say a little about the prospects for advertising for next year. We, the entire journal group to which we belong, increased about 30% last year, '67 over '66. This January, our journal is 25% over what it was a year ago in January and I'd like to say a little more about that later.

Our journal group consists of 35 state journals, and two independent noncommercial medical journals. We were the only medical journals in the country last year that sold more advertising in '67 than they did in '66. All of the commercials, such as *Modern Medicine, Medical World News* and all the large, nationally circulated journals, actually had a decline last year.

We attribute the fact that our state journal group made an increase in a year when everyone else had a poorer experience to the idea that we are still in the developmental stage. We haven't quite developed all of our potential for selling advertising. We don't know, of course, when we will have fully developed our potential. It may be that it's developed now.

This year we will participate with everybody else in a climate in which advertising is about as difficult to sell as you can imagine, due mostly to government regulations and government harrassment.

In regard to our 25% increase in the month of January, I'd like to suggest to all of you that now is one of the best times we have ever had for each of the councilors and alternate councilors to conduct a little thank you campaign each month, writing one of our pharmaceutical advertisers that appear in our journal. Just address it to the president, or the advertising manager and tell them that you saw their advertisement in *The Journal* and thank them for their financial support and also for the educational value which the advertisement contributes.

It wouldn't hurt if each one of you would enlist three or four of your friends to do the same thing. It needn't take a lot of time. It can be done on a prescription blank. In fact, I think the more informal the message is, the more sincere it appears to the man in business. This year, Mead Johnson is carrying three four-color pages in each of our issues, or a total of 36 pages, advertising Oracon. This, especially, I think we should respond to very generously and after the January or after the February issues appear, I think each one of us should address a note to Mead Johnson.

Report of AMA delegates. DR. HAROLD C. OCHSNER reported on the actions taken by the AMA House of Delegates on the resolutions presented by the Indiana delegation at the interim session held in Houston, November 26-29, 1967, and also on all other actions taken at that session. (For complete report, see pages 113-117, January, 1968, *Journal.*)

DR. LESTER D. BIBLER, AMA Trustee, reviewed recent actions of the AMA Board of Trustees, mentioning specifically:

1. The annual report of the American Medical Association, published in the *AMA Journal.*

2. AMA immediate past president, Dr. Charles L. Hudson, has assumed the office of director of the Division of Socio-Economic Activities of the AMA, and this, in turn, causes some changes in the activities of his position as a member of the Board of Trustees.

The secretary asked if Dr. Hudson's department would be able to supply factual information that would answer or refute some of the reports and statements made in the press about medicine and the medical profession. Dr. Bibler suggested that a "suitable letter or request be directed to Dr. Hudson relative to this problem . . . . We are hoping that under this new administration the AMA will be more active than it has been in the past in this respect."

3. Health Manpower Commission, appointed by President Johnson, of which Dr. Dwight Wilbur is a member. Final recommendations of this commission were published in the *AMA News* several weeks ago.

4. AMERF Program. Dr. Bibler suggested that a resume of Dr. Blasingame's talk before the Rochester, New York Medical Society on the activities of this organization be carried in *The Journal*, or be reprinted for distribution.

5. Information from AMA Committee on Quackery. (This is being received by the ISMA Commission on Public Information).

The chairman of the Council announced that Dr. Bibler is a candidate for reelection to the AMA Board of Trustees. **On motion of Dr. Larson, taken by consent, the Council approved the sending of a letter to all state medical associations announcing Dr. Bibler's candidacy and soliciting their support.**

Reports of Guests

DR. GLEN V. RYAN, chairman, Blue Shield Board, announced:

1. Effective April 1, 1968, Blue Shield will liberalize its Medicare supplemental program by picking up the first $50.00 for covered services; for example, on surgery, anesthesia, in-hospital care, diagnostic laboratory and x-ray, instead of the first $20.00. "We hope this will alleviate some of the confusion regarding the supplemental programs which we have experienced in the past." This increase from the first $20.00 to the first $50.00 will become effective without any increase in the premium structure.

2. Effective October 1, 1969, the new contract with Ford, Chrysler and General Motors will provide "a payment drug program with the first $2.00 of drug charges being paid by the patient and the remainder will be paid by insurance." Reimbursement will be made to a pharmacist on the acquisition cost of a drug plus a fixed professional fee of approximately $1.90 per prescription. The program specifies that the carrier must have a contract with each pharmacist who desires to participate in this program. In all probability Blue Shield will be the first one to be asked to act as a carrier on this program for Motors.

Another important stipulation of the Motors agreement is that all benefits must be delivered on a uniform basis by all plans. "This is an increasingly common demand by all our national accounts. If an agreement is not signed by a particular Blue Shield plan to deliver uniform benefits, the UAW contract states that the control plan, Michigan Blue Shield in this instance, shall arrange to provide the benefits."

3. The Federal employee high-option program, which is comparable to Blue Shield's preferred plan, is now being administered on the usual and customary charge concept. Better than 50% of all Blue Shield programs now are based on payment of the usual and customary charges. The effective date for the upgraded federal employees' program benefits was January 1, 1968.

4. Effective with the policy year beginning April 1, 1968, rates of the professional health care plan (Physicians' Insurance) will have to be increased. Proposed quarterly new rates will be: employee, $34.98; employee and dependents, $90.57. These new rates reflect an increase of the total Blue Cross-Blue Shield quarterly rates on an employee of $2.85, and on an employee and dependents of $7.29. This increase is due to the figures reflected in the summary of services; for the year December 1, 1966 to November 30, 1967, there was a loss on Blue Cross of $14,740.38 and on Blue Shield, $4,340.20.

DR. A. C. OFFUTT, State Health Commissioner, discussed the *measles eradication program*. Fifty-eight counties have already given, or plan to give in the next few weeks, a total of 128,000 plus doses of measles vaccine. Thirty-four counties have not used or requested any vaccine. In these 34 counties it is estimated that there is something like 58,000 susceptible children between the ages of 1 through 12. "Dearborn-Ohio County Medical Society has not asked for any state vaccine. I would like to make special recognition of these two counties since they did purchase their own vaccine and immunize about 900 susceptible children in May of 1966 . . . they really did a good job all on their own, with no help from the state at all.

"We still have about $100,000.00 which we can use to buy vaccine for the counties which request it. We estimate that most of this money will be encumbered before June 30."

Matters Referred to Council by Executive Committee

DR. RALPH V. EVERLY, chairman of the Executive Committee, presented the following matters:

1. *Reinvestment of surplus funds.* Proposal that 25% of the Treasury bonds held by the association be sold and reinvested in stocks or mutual funds was discussed by Drs. Hoyt, Smith, Dukes and Corcoran. **On motion of Drs. Petrich and McIntosh, the Council voted that the Executive Committee study this matter in conjunction with a professional consultant.** Dr. Dukes opposed the motion.

2. *Distribution of placard listing voluntary health agencies.* This placard, listing the voluntary health agencies which had met the criteria for approval of the Indiana State Medical Association and had received the endorsement of the Commission on Voluntary Health Agencies, was mailed to all ISMA members in 1967. The chairman of the Council read, in part, a letter received from Dr. Norman R. Booher, chairman of the Commission on Voluntary Health Ageneies:

> "As a part of the annual report of the commission to the last House of Delegates (October, 1967), the proposed action of this commission to repeat this placard annually was stated. This was approved, with commendations, by the House of Delegates. Therefore, as a part of the program of this commission, it is planned to redistribute this placard again this year.
>
> "In addition to the placards, the commission will be closely weighing the programs of all voluntary health agencies — will be maintaining constant liaison with them— guiding their medical policies— and will cooperate with these agencies in a joint scientific meeting in May and will institute a new program of presenting the services of the voluntary health agencies to the students of the Indiana University School of Medicine.
>
> "This program is outlined for the information of the Council so that it is clearly understood, and while the com-

mission feels it has been mandated by the House of Delegates to proceed, it is hoped that the enthusiastic endorsement of the Council is received."

Dr. Taylor moved that no appropriation be made by the Council for the mailing of these placards and that a large ad be run in *The Journal* stating that these placards are available to those who request them. Motion seconded by Dr. Hillis and passed on a hand vote of 7 to 6.

By consent, it was agreed that if a vast number of members request copies of the placard, this fact will be brought to the Council as an item of business at its next meeting. If not, it will be incorporated in the next Executive Committee report as a matter of information.

In further discussion it was the consensus that the cost of distribution of this placard (approximately $500.00) should be brought to the attention of the reference committee next October when it reviews the report of the Commission on Voluntary Health Agencies, in order that the reference committee may determine whether or not the House of Delegates desires to appropriate this amount of money for this mailing.

3. *Cigarette advertising in The Journal.* The Executive Committee received a letter from a member of the association stating that he thought it was hypocritical of the association *Journal* to carry cigarette advertising when the Public Health Service and many others are urging people not to smoke cigarettes, and urging discontinuance of this advertising. The Executive Committee recommends to the Council that cigarette advertising be discontinued in *The Journal.*

On motion of Drs. Smith and Dukes, Council voted that The Journal shall no longer accept cigarette advertising.

On motion of Drs. Petrich and Dukes, the Council voted on a hand vote, 7 to 6, that exhibits for the annual convention shall not be accepted from the cigarette companies.

4. *Indiana Health Careers.* Dr. Everly reported that the reference committee last fall had recommended that the association support Indiana Health Careers in the amount of $500.00, and this was approved by the House of Delegates. **On motion of Drs. Petrich and Smith, the Council approved payment of a $500.00 contribution to the Health Careers program of Indiana.**

Economic and Organization Matters

1. *Commission on Special Activities.* DR. MARVIN E. PRIDDY, chairman, reported in detail on the survey conducted by his commission on the location and operation of blood banks in Indiana. (For list of all blood banks in Indiana and for information obtained through questionnaire sent to all Indiana hospitals, see September, 1967, *Journal*).

Dr. Priddy urged physicians to acquaint themselves with the operation and control of blood banks in Indiana. "I think the biggest problem that I have found is that we have very little knowledge about the blood banks. It is important that we become cognizant of what these blood banks are trying to do and to familiarize ourselves with them; in other words try to keep them from becoming federally run, keep control within our physicians and within the Indiana State Medical Association. We need to help these blood banks; they need our help . . . . I think ideally the best blood bank in Indiana would be one where we had a hospital blood bank system with free interchange of blood between hospitals. This probably would be more along commercial lines, yet with voluntary donors, particularly donors of the family and friends of the recipient. This would be controlled by competent physicians, members of the Indiana State Medical Association . . . . We should all maintain complete knowledge and awareness of all aspects of our blood banks — keep out federal control, enforce qualified physicians' control of blood banks, and educate the people of Indiana of the need of blood. We don't need new rules and regulations, we don't need any legislation, I think we simply need more of an awareness by physicians."

Dr. Priddy said that probably a booth at the ISMA annual convention, set up jointly by the community blood bank of Marion county and the Red Cross blood banks to publicize the operation of blood banks in Indiana would be worthwhile.

It was also suggested that an attempt be made to encourage the formation of committees on blood banks in the various component county medical societies.

The Council thanked Dr. Priddy for his informative report and asked that he leave a copy in order that the information contained in it could be disseminated more widely.

2. *Annual Convention, Fort Wayne, October 15, 16 and 17, 1968.* Dr. Charles H. Aust, chairman, Commission on Convention Arrangements, outlined the program as proposed by the commission, as follows:

Tuesday, October 15, 1968

Morning—Council meeting

Golf tournament and trap shoot

Afternoon—House of Delegates meeting

Evening—Dinner for all members of the association. Presentation of awards for athletic events

Reference Committee meetings

Wednesday, October 16, 1968

Morning—General scientific meeting

"Surgical Aspects of Trauma"

Noon—Section luncheons

Afternoon—General scientific meeting (possibly a socio-economic program. Dr. Aust asked for the Council's opinion as to whether or not such a program should be presented.)

Evening—President's night

Thursday, October 17, 1968

Morning—General scientific program

"Automotive Accidents"

Noon—Fraternity luncheons

Afternoon—General scientific program

"Diagnosis and Treatment of Coronary Disease"

Evening—Formal entertainment program, if such a program is desired.

Friday, October 18, 1968

Morning—Final meeting of House of Delegates

Noon—Adjournment

The chairman of the Council commented that some criticism had been received concerning scheduling all of the section meetings on one day, as this precluded attendance by large numbers of persons at some excellent programs. He suggested that the Commission on Convention Arrangements make note of this fact.

The Council commended Dr. Aust and the Commission on Convention Arrangements on their report.

By consent Dr. Clark was given permission to schedule sometime during the annual meeting a program on indoctrination if it can be arranged.

3. *Commission on Public Health.* Dr. Thomas O. Middleton, chairman, discussed the advisability of holding a Health Fair about the same time as the annual convention of the association in 1969 which (a) would stimulate career interest in health fields, (b) would provide a medium for health education for students and the community, generally, and (c) would provide a means by which a more cooperative effort can be established between the physician and the school administrator within each community.

Dr. Middleton outlined in detail the commission's tentative recommendations for such a health fair. **By consent the Council accepted his recommendations as information and instructed the commission to proceed with plans for the proposed program and to report back to the Council at regular intervals with specific recommendations.**

4. *Section on Forensic Medicine.* A letter received from Dr. W. P. Loh, Gary, proposing that a Section on Forensic Medicine be created "because the importance and interest in forensic medicine are constantly increasing" was brought to the attention of the Council by Dr. Steen.

Dr. Petrich moved that this matter be referred by resolution to the House of Delegates in October, 1968. Motion seconded by Dr. Hillis.

The motion of Dr. Corcoran, seconded by Dr. Hoyt, to amend the above motion to state that this matter be referred first to the Commission on Constitution and Bylaws was put to vote and defeated.

Dr. Petrich's motion that the Council prepare a resolution to be presented to the House of Delegates to establish a Section on Forensic Medicine was put to vote and carried.

5. *Remission of state dues.*

a. On motion of Drs. McIntosh and Smith, remission of the state dues of a member of the Fifth District because of illness and temporary retirement from practice until such time as he returns to practice, was approved.

b. On motion of Dr. Donato, seconded by many, remission of the state dues of two members of the Seventh District because of disabling illness in both cases was approved.

c. On motion of Dr. Steen, seconded by many, remission of the state dues of two physicians in the Tenth District, because of hardship, was approved.

d. On motion of Drs. Hillis and Smith, remission of state dues of a member of the Eleventh District, due to retirement from practice for health reasons, was approved.

e. On motion of Dr. Bowen, seconded by many, remission of state dues of two physicians in the Thirteenth District, because of retirement and hardship, was approved.

New Business

1. A bulletin from the American Psychiatric Association regarding the AAGP's program in continuing education in psychiatry under a federal grant was brought to the attention of the Council as a matter of information.

2. *House of Delegates' Action on Resolution No. 24, CLOSED HOSPITALS STAFFED BY SALARIED PHYSICIANS.* The resolution, as presented to the House of Delegates, read as follows:

"BE IT RESOLVED that the Council of the Indiana State Medical Association hereby recommends that the House of Delegates of the Indiana State Medical Association express its disapproval of the establishment of closed hospitals or clinics staffed entirely by salaried physicians and that all recognized specialty groups and boards and the AMA be informed of this action."

Reference Committee No. 4 recommended amending the resolution to read as follows, and moved its adoption:

"NOW, THEREFORE, Be It Resolved that the House of Delegates of the ISMA express its disapproval of the *future* establishment of closed hospitals or clinics staffed entirely by salaried physicians and that all recognized specialty groups and boards and the AMA be informed of this action."

(Motion seconded.) Dr. Hickman's motion to amend the resolution by striking the words "or clinics" was seconded, discussed by Dr. Caylor, put to vote, and carried.

Dr. Dalton then offered an amendment to the amendment of Resolution No. 24, as follows, and moved its adoption:

"This House of Delegates approves in principle this amended resolution. Due to the urgency of this problem and the multiple ramifications thereof and the need for further clarification, the House of Delegates refers the matter, in its entirety, to the Council for implementation."

(Motion seconded, put to vote, and carried.)

The reference committee approved the report as amended and moved its adoption. (Motion was seconded, put to vote, and carried.)

The chairman of the Council referred this matter to the Council Committee on Membership Matters and asked that this committee report back with recommendations at the next Council meeting.

3. A preliminary report, prepared by Mr. Robinson, on the powers and obligations of the councilors, was distributed to the members of the Council.

Matters from Council Committees

1. *Council Liaison Committee with Blue Shield.* Matters referred to the Council Liaison Committee with Blue Shield were deferred until the next Council meeting inasmuch as this committee had not met recently.

Correspondence from an over-65 physician concerning his coverage under Blue Cross-Blue Shield Physicians' Program, was reviewed and referred to the Council Liaison Committee with Blue Shield and the committee will report on this matter at the next Council meeting.

2. *Council Liaison Committee with Blue Cross.* Dr. Donald R. Taylor, chairman, announced that the Medical Advisory Committee to Blue Cross would meet on January 24, at which time he would present to the committee the correspondence which had been referred to his liaison committee,

and a report will be made at the next Council meeting.

Dr. Taylor also reported that "the Board of Trustees of the Indiana Hospital Association defeated the effort of Blue Cross to have a voluntary transfer of the in-hospital specialties fee schedule from Blue Cross to Blue Shield. The insurance committee of the Indiana Hospital Association made the recommendation to their Board of Trustees that this be done, but the Board of Trustees of the Hospital Association saw fit to defeat this recommendation of their committee."

3. *Liaison Committee with I.U. School of Medicine.* Dr. Peter R. Petrich, chairman, was asked to formulate with Dean Irwin the mechanics for implementation of a new technique for the Liaison Committee with I.U. School of Medicine and report to the Council at its next meeting.

4. *Council Committee on Emergency Medical Services.* Dr. Lowell J. Hillis, chairman, called attention to two points:

(1) At a meeting of his committee on January 13 the matter of emergency medical services was discussed at great length and the committee felt that this problem had been adequately covered by the House of Delegates, October, 1967, in approving Resolution No. 7, CONTRACTUAL ARRANGEMENTS BETWEEN PHYSICIANS AND HOSPITALS, introduced by the Marion County Medical Society, as follows:

> "BE IT RESOLVED, that it shall be ethical for a physician to enter into any contract or agreement with a hospital if and only if such contract, excluding the amount of remuneration, has been reviewed and approved by the medical staff of the hospital and the county medical society."

"We felt this takes care of all of the situations that we know of in the state so far as hospitals hiring (although that word was sort of tossed about) coverage for their hospital emergency rooms. The situation at Indianapolis Commmunity Hospital, in Fort Wayne and in Terre Haute, and some other places, probably are all, we think, covered by that resolution."

(2) *Survey of emergency medical facilities in the state of Indiana.* The committee discussed this matter in detail in an attempt "to find out which way we are going with this service. The committee decided that probably the first requirement is a survey of the emergency medical facilities in the state. This can be carried out probably by a questionnaire directed to the various hospitals. Most hospital administrators would be helpful in answering the questionnaire, but there are some things that they would not be in a position to do. We feel that we must ask permission of the Council to go outside of our organization in order to seek help in any type of a survey that we would make. By that we mean to seek the cooperation of the Indiana State Police, the American Red Cross, the State Board of Health, the National Research Council, the American Academy of Pediatrics, the United States Public Health Service, the American Medical Association, and several others, all of whom are active in this problem. Four items which we feel this committee should consider in the future are: (a) First aid in rescue; (b) Communications; (c) Transportation, and (d) Emergency facilities, which includes staffing of hospital emergency rooms."

On motion of Drs. Hillis and Larson, the Council approved the request of the Council Committee on Emergency Medical Services to seek outside assistance in making a study and survey of emergency medical services in the state of Indiana.

Following discussion by several, it was taken by consent that a copy of resolution No. 7, accompanied by a statement that this is the official Council statement, along with an abstract of the official report of the AMA Council on Medical Services, which was presented at the June, 1967, AMA meeting, containing guidelines for hospital staffs in approving contracts for emergency room services, should be sent to all county medical society presidents and secretaries and, if possible, to the president of every hospital staff in Indiana.

The method being used by several Indiana hospitals whereby three or four physicians are employed on a retainer basis to cover emergency room services also was discussed at length by many. Specifically, the letter addressed to the active and associate staff members by the chairman of the Medical Services Committee of Community Hospital of Indianapolis, concerning proposed changes in its contractual agreement with the physicians who operate the emergency department to permit them to assist in surgery and to perform insurance examinations, which was referred to the Council by the Executive Committee, was discussed by Drs. Dukes, Donato, Petrich, Corcoran, Clark, McIntosh, Taylor and Hillis. **On motion of Drs. Hillis and Reid, this was received for information purposes only.**

5. *Council Committee for Orientation of New Members.* Dr. William R. Clark, chairman, discussed the following items:

(a) *Orientation format, compiled by the Commission on Special Activities.* Dr. Clark asked the Council to decide whether or not this program should be implemented. The chairman of the Council called attention to the fact that the House of Delegates had mandated the association to implement this course and a motion to proceed with it was not necessary. Discussion by Drs. Dukes, Wing, Larson, Hillis and Bowen concluded: (1) that this course might be offered at the time of the annual convention and recognition of the new members of the association the same as the 50-year men are recognized should be considered; (2) that the program might be presented at each of the thirteen district meetings; (3) that the survey made for the Illinois State Medical Society by the Opinion Research Corporation of Princeton, New Jersey, should be sent to each councilor for study. This survey was conducted in an attempt to find out what the members want, including the problem of orientation of new members.

(b) *Indoctrination.* Dr. Clark reported that his committee is of the opinion that the booklet describing all that goes on at the state level of ISMA, as recommended by the Commission on Special Activities, and as more or less mandated by the House of Delegates, should be edited and distributed to both new and old members of the association. Such a booklet would cost between 15 and 20 cents.

On motion of Drs. McIntosh, Smith and Taylor, the Council approved the publication of the indoctrination book-

let at the stated cost of from 15 to 20 cents per copy.

(c) *Appropriation.* The matter of an appropriation to underwrite the orientation program was deferred until a later meeting of the Council.

6. *Council Committee to Study Membership Matters.* Dr. Otis R. Bowen, chairman, reported that his committee had discussed two matters:

(1) *Re-evaluation of the policy on remission of state dues.* The committee decided that no change should be made from the present status whereby dues are remitted because of hardship, and hardship includes retirement from medical practice irrespective of a physician's financial situation. Request for remission must come from the county medical society to the Indiana State Medical Association with a statement of the circumstances in each case.

(2) *Survey of membership regarding services offered by the Indiana State Medical Association.* Dr. Bowen spoke of the two resolutions introduced in the 1967 House of Delegates regarding a survey of the membership, which the reference committee "referred to the Council for referral to the appropriate committee of the ISMA for further consideration as to the feasibility, cost, and benefits to be derived from such a study." Discussed by Drs. Bowen, Steen, Clark, Dukes, McIntosh, Petrich, and the secretary.

Dr. Steen said he felt that no other committee could handle this matter with greater dispatch and expediency than the Council Committee on Membership Matters, and that this committee should be assigned the duty of developing some sort of a survey.

Dr. Bowen suggested a publicity campaign, perhaps using the front page of *The Journal*, with a questionnaire on the second or third page which could be torn out and mailed in; then a follow-up, with a personal appeal to those who do not answer.

Dr. Petrich moved that "in view of the comments by all members present, including the executive secretary, that we do conduct a survey, but that we give great consideration to the manner in which we conduct such a survey. It is further suggested as a part of the motion that the councilors be empowered and be responsible for the mailing of the survey questionnaire to their individual members, with perhaps a personal letter from the councilor to the local society presidents, secretaries, treasurers and so on, urging that this be filled in and returned." Motion seconded by Dr. Dukes, put to vote, and carried.

The chairman of the Council referred this matter to the Council Committee on Membership Matters for report to the Council at its next meeting.

7. *Council Committee on Business Consultants for The Journal.* Dr. Joe Dukes, chairman, announced that the matter of cigarette advertising in *The Journal* was the only business that had been referred to his committee and the recommendation of his committee that cigarette advertising be eliminated from *The Journal* and that the cigarette companies not be allowed to exhibit at the annual convention had been accepted by the Council earlier in the meeting.

8. *Council Committee for the Study and Implementation of Governmental Medical Programs.* Dr. Albert M. Donato, chairman, reported on the provisions of the comprehensive health plan. Dr. Offutt commented on the provisions of this law.

9. *Council Committee on Economics and Fiscal Matters.* Dr. Robert M. Reid, chairman, reported on the following matters which had been referred to his committee:

(1) *ISMA investments.* The area of investment planning for ISMA is limited in that the organization must be administered as a non-profit group, and investment decisions are limited by the Bylaws of the association. Chapter XXXII stipulates that advice regarding the investment of surplus funds may be obtained only from a bank or trust company in Indianapolis. In the latter regard Mr. Robinson feels that Chapter XXXII includes enabling language which would permit the Council to instruct the Executive Committee to obtain advice elsewhere, should such action be deemed advisable. **Dr. Reid therefore moved "that the Council does advise the Executive Committee to seek such investment counsel or whatever they see fit." Motion seconded by Drs. Taylor and Petrich, put to vote, and carried.**

(2) *Reimbursement of association officers.* Dr. Reid reported that the committee will have specific recommendations at a later date on the two or three phases of this matter which had been discussed by his committee: (a) the consensus of the committee is that no one should suffer direct financial losses as a result of his efforts for the benefit of ISMA; (b) the matter of reimbursement, and (c) an exception to direct reimbursement for expenses should be made in the case of the president. "Accordingly, the committee recommends the establishment of an honorarium fund which would provide $5,000.00, payable to the president in quarterly installments during the year of tenure . . . . The honorarium method is token, it does not pretend to be a serious attempt adequately to compensate for the considerable financial loss inevitably suffered by most individuals serving this office. Obviously it is impractical to pay properly any physician for such organizational activities."

(3) *Annual Budget.* Dr. Reid reported that his committee had reviewed the budget for 1967-68. **On motion of Drs. Reid and Taylor, the Council approved the budget.**

Date for Next Meeting

By consent, 10:00 a.m., March 17, 1968, was selected as the date for the next meeting of the Council.

There being no further business, the meeting was adjourned. ◄

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SUPPORT THESE PROGRAMS OF THE AMA-ERF

- *Funds for Medical Schools* -- Contributions may be designated for one particular school. Undesignated contributions will be distributed equally among all medical schools. No restrictions are placed on the use made of this money by the schools.
- *Loan Guarantee Fund* -- Provides guaranteed loans to medical students, interns and residents. For every dollar in the fund, the private banking industry loans $12.50, at a maximum rate of 6% simple interest.
- *Honors and Scholarship Program* -- Designed to attract students of high promise to careers in medicine—meetings, personal contacts and written materials will be employed. Medical school scholarships will be available to those who need them.
- *Undesignated Contributions* -- Money not designated for any specific AMA-ERF program will be placed in the general fund and the Board of Directors will decide on its use, depending upon need.

AMA-ERF

American Medical Association
Education and Research Foundation
535 North Dearborn Street
Chicago 10, Illinois

COMMERCIAL ANNOUNCEMENTS

BUY AND TRY: Wye Plantation Aberdeen-Angus frozen semen from Advanced Register P.R.I. sires officially gaining over four pounds per day or whose 365-day weights are above 1,200 pounds. (Performance tested sires always for sale.) WYE PLANTATION, Queenstown, Maryland 21658. Telephones: 301-827-7166 or 301-827-7160.

PARTNER WANTED: General practice; M.D. in early 30's in central Indiana town of 12,000 (less than 30 miles from Indianapolis) desires to share a good income, active family practice. A progressive town with a well-equipped, 100-bed hospital and a good medical atmosphere. New ultra modern office. Write Box 343, The Journal, ISMA, 3935 N. Meridian St., Indianapolis, Ind. 46208.

LOCUM TENENS WANTED: May and June, 1968, for general practice, including OB and minor surgery. Three fine hospitals; all specialties available for consultation. $1,500 a month. Write R. B. Juergens, M.D., 1724 Prairie Lane, Fort Wayne, Ind., or call 219-748-0608.

WANTED: General practitioners, anesthesiologist, urologist, obstetrician, orthopedist and pediatrician needed in growing community of 15,000. Service area 25,000. Present 83-bed general hospital. New 100+ bed automated hospital to be completed within two years. City has excellent industry, school system, and recreational activities. 45 minutes from Madison or Milwaukee. Future unusually promising. For more information contact: Administrator, Watertown Memorial Hospital, Watertown, Wis.

PEDIATRICIAN: to join established department of pediatrics in 17-man midwestern group. Excellent opportunity in a growing-dynamic clinic with early partnership. Town of 33,000 with two hospitals and excellent schools. Clinic staff enjoys regular vacations and time off for study. Write Box 348, The Journal, ISMA, 3935 N. Meridian St., Indianapolis, Indiana 46208.

FOR SALE: Clinic and residence combination in Jasper. Property consists of a two-story brick southern colonial house located one block from hospital. Building has a total of 18 rooms and two baths down; 11 rooms and two baths upstairs. Large business potential with approximately 50,000 persons in a 30-mile radius. Sixty manufacturing and processing plants in this town of 8,000. This clinic has been set up with two doctors and could possibly equip three doctors. Financing arrangements can be made to suit prospective buyer. Contact Mr. Gene A. Thieman, Thieman Realty & Insurance, 106 West 7th St., Box 331, Jasper, Ind. 47546.

WANTED: Used, discarded, or obsolete small medical equipment for use by the Episcopal Church of Haiti. This equipment will be used for a new hospital-dispensary in this poverty-stricken country. All donations are tax deductible. Please call: G. C. Boling, M.D., at 251-0224, or 251-6659, or ship to 1440 E. 46th St., Indianapolis 46205.

AVAILABLE: Excellent opportunity for G. P. in Brownsburg, Indiana (8 minutes from Speedway on I-74) in the office of L. E. Foltz, recently deceased. Latest equipment and furnishings may be purchased on contract. Office for rent; may be remodeled for dual practice. For appointment call — Mrs. Mildred Foltz, 852-2557 or 852-2675.

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Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver-function tests advisable during protracted therapy.

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Indianapolis, Indiana

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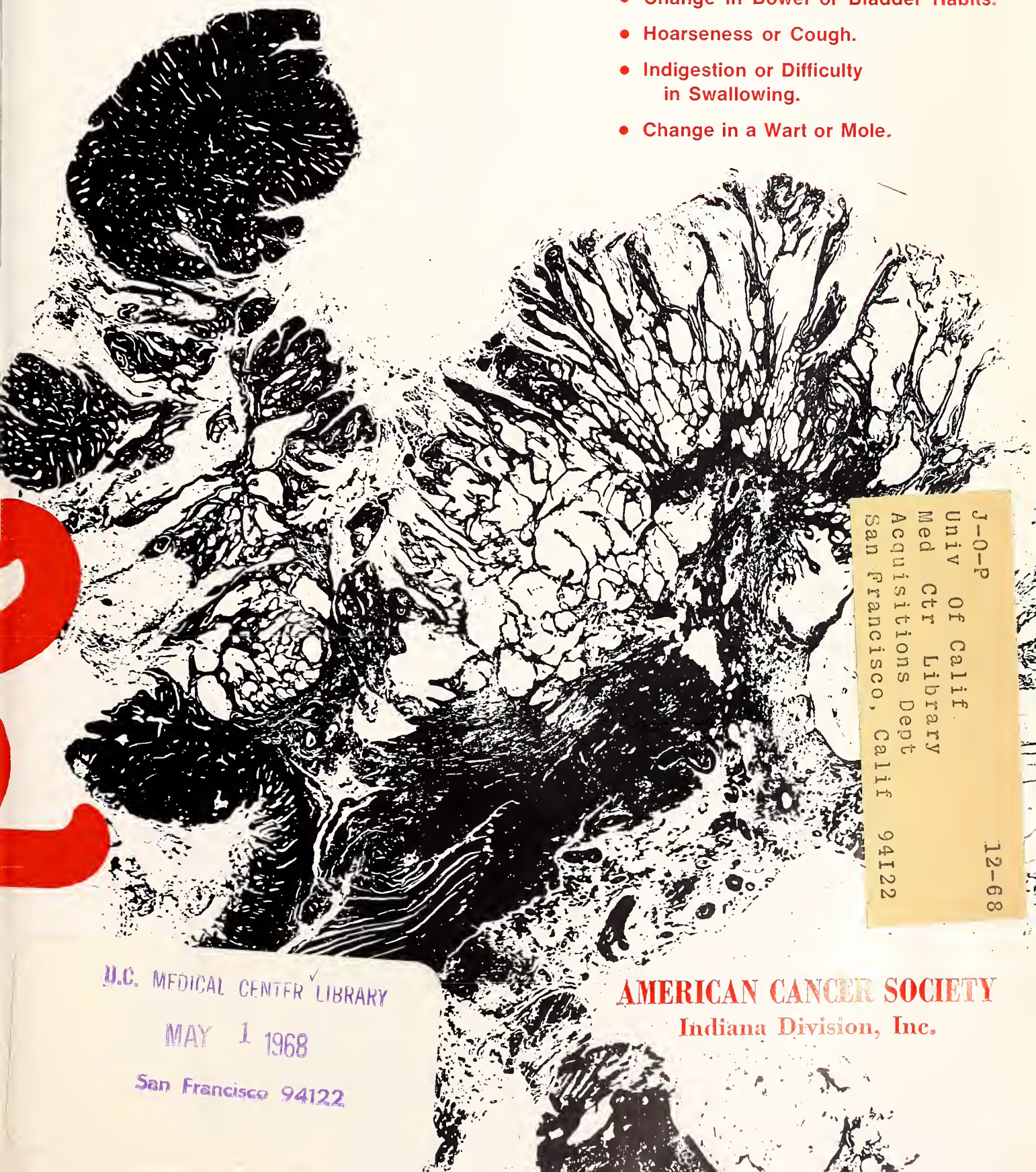

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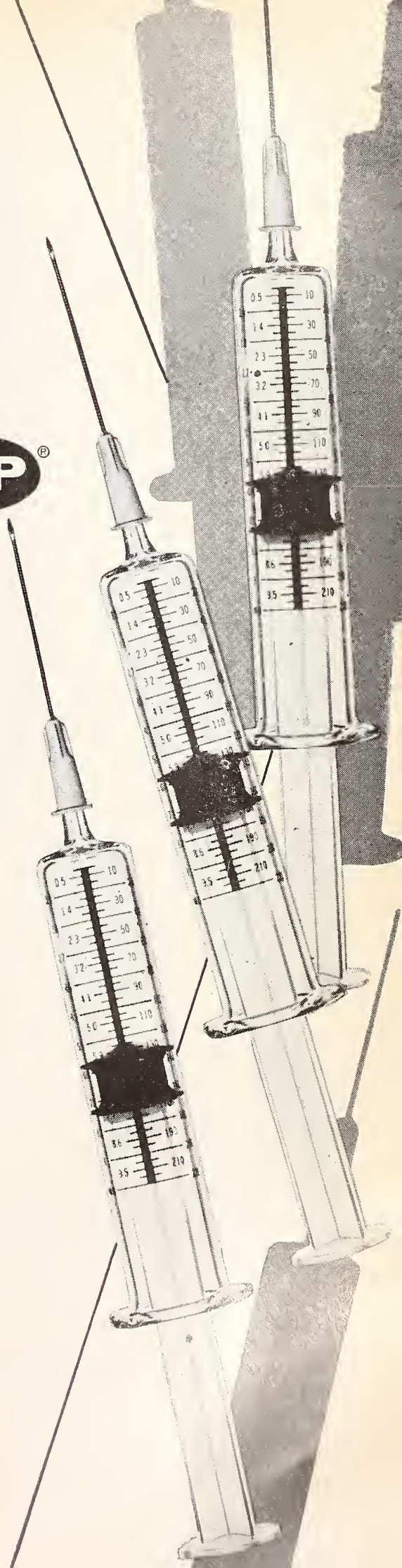

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Precautions: Keep out of reach of children. Not recommended for patients 12 years old or less. Carefully supervise dose and amounts prescribed, especially for patients prone to overdose themselves. Excessive prolonged use of meprobamate may result in dependence or habituation in susceptible persons—as alcoholics, ex-addicts, severe psychoneurotics. Withdraw gradually after prolonged high dosage to avoid possibly severe withdrawal reactions including epileptiform seizures. Warn patients of possible reduced alcohol tolerance. If drowsiness, ataxia or visual disturbances (impairment of accommodation and visual acuity) occur, reduce dose. If symptoms persist, caution patients against operating machinery or driving. After meprobamate overdose, prompt sleep, reduction of blood pressure, pulse and respiratory rates to basal levels, and hyperventilation are reported. Give cautiously to patients with suicidal tendencies. Treat attempted suicide (has resulted in coma, shock, vasomotor and respiratory collapse and anuria) with immediate gastric lavage and appropriate supportive therapy (CNS stimulants and pressor amines as indicated).

Side Effects: Ethoheptazine and aspirin may occasionally cause nausea, vomiting, epigastric distress, and rarely dizziness. Overdosage may result in CNS depression (drowsiness and lightheadedness) or CNS stimulation and salicylate intoxication (requires induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, and observation for hypoprothrombinemic hemorrhage [usually requires whole blood transfusions]). Meprobamate may cause drowsiness, ataxia and rarely allergic or idiosyncratic reactions. These reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses who have had no previous contact with meprobamate. Mild reactions are characterized by urticarial or erythematous maculopapular rash. Acute nonthrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever have been reported. If allergic reaction occurs, meprobamate should be stopped and not reinstituted. Severe reactions, observed very rarely, include angioneurotic edema, bronchial spasms, fever, fainting spells, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case) and hyperthermia. Treat symptomatically such as with epinephrine, antihistamine and possibly hydrocortisone. A few cases of leucopenia, usually transient, have been reported following continuous use. Rarely, cases of aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia have been reported; almost always, in the presence of known toxic agents.

Composition: 150 mg. meprobamate, 75 mg. ethoheptazine citrate and 250 mg. aspirin per tablet.

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3.	Daniel H. Cannon, New Albany	Elmer L. Wallace, New Albany	May 15, 1968, New Albany
4.	Frank B. Bard, Crothersville	Harold E. Miller, Seymour	May 15, 1968, Seymour
5.	Thomas J. Conway, Terre Haute	Arnold W. Kunkler, Terre Haute	April 3, 1968, Terre Haute
6.	Paul Inlow, Shelbyville	Perry Seal, Brookville	May 1, 1968, Connersville
7.	Jay Reese, Martinsville	James H. Gosman, Indianapolis	May 9, 1968, Franklin
8.	William Stinson, Anderson	Charles R. King, Anderson	June 5, 1968, Anderson
9.	Nolan Hibner, Monticello	Max Fields, Monticello	May 16, 1968, Monticello
10.	John J. Reed, Hobart	Raymond Doherty, Crown Point	May 1, 1968, Whiting
11.	Charles Wise, Camden	Fred Poehler, La Fontaine	September 18, 1968, Delphi
12.	Max M. Gitlin, Bluffton	Berniece Williams, Fort Wayne	May 15, 1968, Angola
13.	E. C. Mueller, LaPorte	John Hildebrand, South Bend	September 18, 1968

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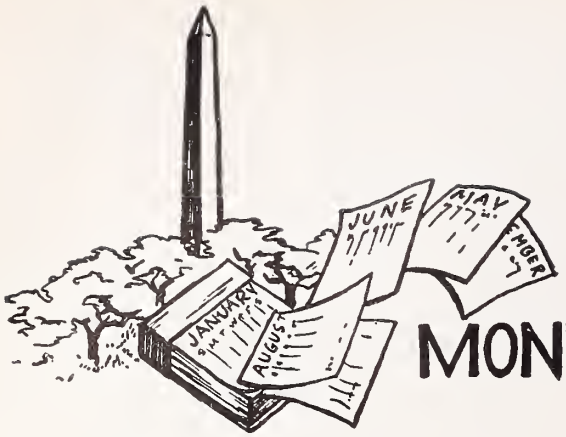

This summary of what is happening in Washington is prepared by AMA's Capitol office and air-mailed to *The Journal* on the ninth of each month preceding month of issue.

MONTH IN WASHINGTON

WASHINGTON, D.C.—The American Medical Association and the Association of American Medical Colleges announced a joint policy statement calling for a substantial increase in the number of medical students.

DR. MILFORD O. ROUSE, president of the AMA and Dr. John Parks, president of the AAMC, reviewed the joint statement at a news conference in Washington.

THE STATEMENT "emphasized the urgent and critical need for more physicians if national expectations for health services are to be realized." The statement said:

"NATIONAL policy which would best meet this need, and would be consistent with the American ideal of equal educational opportunity for all, would provide such educational resources that every young person interested in and qualified for entry to the study of medicine would have this opportunity. Both associations endorsed the position that all medical schools should now accept as a goal the expansion of their collective enrollments to a level that permits all qualified applicants to be admitted. As a nation, we should address the task of realizing this policy goal with a sense of great urgency.

"IN THEIR endorsement of and call for broadening educational opportunity for the study of medicine, both associations stressed that the length of time necessary to realize such a goal does not minimize the need to respond to today's critical shortage of physician manpower. In order to enable the nation's medical schools both to meet today's crisis and to attain the longer-range goal of unrestricted educational opportunity, those responsible for allocation of resources must recognize the magnitude of these tasks."

THE TWO associations said both immediate and long-range steps should be taken.

THE IMMEDIATE steps are:

1. To increase the enrollment of existing medical schools.
2. To foster curricular innovations and other changes in the educational programs which could shorten the time required for a medical education and minimize the costs.
3. To meet the need for innovation in educational programs and to encourage diversity in the character and objectives of medical schools. The development of schools of quality

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where a primary mission is the preparation of able physicians for clinical practice as economically and rapidly as possible is to be encouraged . . . .

"A LONGER-RANGE approach to the need for physicians is the development of new medical schools," the statement said. "This approach will not solve our immediate, urgent need for more physicians but it is essential for meeting the national needs of 1980 and beyond."

THE TWO associations said the longer-range program would require adequate financial support from governmental and various private sources for:

1. Construction of facilities to expand enrollment of existing schools and to create new schools.
2. Support of the operational costs of medical schools.
3. Stimulation and incentive for educational innovation and improvement.

"TO IMPLEMENT these measures will further require that each medical school and its university reexamine its objectives, its educational program and its resources to determine how it can contribute most effectively to the national need for more physicians and what financial help it will need to make this contribution," the statement said. "Also required is understanding by the public, the private foundations, industry, local and state governments, and the national Congress—groups which must provide the financial support which is necessary.

"INITIATIVE for development of new schools and expansion of the established institutions should be locally determined. Only the governing bodies of schools with ongoing programs in medical education can decide to expand such programs. Institutions wishing to organize new medical schools must assume the responsibility for marshalling the necessary support. Both associations are prepared to lend any assistance they can to such efforts."

PRESIDENT JOHNSON PROPOSES PRICE CONTROL OF DRUGS

IN A HEALTH MESSAGE to Congress, President Johnson proposed control of prices of drugs bought for government programs and asked for authority for the Food and Drug Administration to publish a drug compendium financed by drug manufacturers. He also asked for more money for health manpower and the maternity and child health programs.

WITH AN objective of lowering costs, he also asked for authority for the Health, Education and Welfare Department to establish new formulas for reimbursement of hospitals and physicians under medicare, medicaid and maternal and child health programs. The Social Security Administration immediately announced that it would begin "an experimental program to find methods of reimbursing hospitals and doctors that will have built-in incentives to efficiency and economy."

PARTICIPATION in such experiments would be entirely voluntary, the SSA said. And Congress would have to approve the necessary legislation before new methods of reimbursement could be put in effect on a mandatory basis.

UNDER MEDICARE, a physician now is reimbursed on the basis of his usual and customary fee if it is considered reasonable.

HEW SAID two methods of reimbursement involving physicians that might be tried are:

—Group practice prepayment plans which offer comprehensive health services to their members could be reimbursed on a set per capita rate for the ensuing period.

—For physicians' services, experimental bases of payment might be a single fee related to total illness services rather than individual fees for each individual visit and individual service, agreed-upon fees held stable for specified periods, fees related to physician-time, or retainer or per capita payments per year for services of a specified kind.

COMMENTING on Mr. Johnson's health message, Dr. Rouse said:

"THERE IS great need for expanded health care service in the United States. Meeting this need requires devoting attention to all the elements involved in the supply of resources and manpower, the distribution of health care, and costs.

"THE AMA supports private and governmental programs that help those who need help. Health care for all the people should be expanded in an orderly way so resources and needs are increased together and at comparable rates of growth.

"GOVERNMENT can and should support the construction and renovation of hospitals and extended care facilities, and together with the states and private sources, should promote a rapid increase in medical manpower.

"AS FOR drug prices, we believe that every patient should be able to buy high quality prescription drugs at the lowest possible price. The way to accomplish this is to promote more effective price competition at the retail level, which will result in lower prescription drug prices for everyone. This should be the thrust of government programs—not price fixing for one group. Everyone should be encouraged to be more price conscious in buying prescription drugs. The physician should include both medical and price considerations in writing prescriptions and the patient should patronize that pharmacy that can furnish dependable service and the prescribed product at the lowest possible price . . . .

"THE PRESIDENT'S message contains little essentially new. It concentrates again on pouring additional millions of dollars into a health care system that is already facing requirements well beyond what it can now meet.

"GOVERNMENT expenditures for health care should be moderated during this period of acute shortage to control rapidly rising cost. Government can be most helpful by controlling inflation and by providing tax deductions and credits for people purchasing health insurance . . . .

Continued

Continued

"THE PHYSICIANS of this country will welcome a genuine partnership in health, where the Federal government will sincerely and continually seek the advice and active collaboration of those whose special services lie in medical education and the planning and provision of superior quality medical care for all citizens."

GUIDE FOR HEART TRANSPLANTS PROPOSED

THE BOARD OF MEDICINE of the National Academy of Sciences stated that the transplantation of human hearts still is in the experimental stage and proposed three guidelines for the procedure.

THE BOARD said human cardiac transplantation should only be carried out in institutions in which these three criteria can be met:

1. The transplant teams should be highly skilled and have had extensive laboratory experience.
2. The work should be carefully planned, and the results should be rapidly communicated to others in the field.
3. Both the teams and the patients should be protected by "rigid safeguards."

CHECK BEING MADE ON ALIENS FOR DRAFT

A CHECK is being made to determine how many alien physicians, dentists and "allied specialists" are now subject to draft laws. A new law for the first time makes aliens in the medical and dental professions subject to draft up to age of 35.

PRESIDENT ASKS MORE MEDICAID AID

PRESIDENT JOHNSON asked Congress for $571.7 million more for medicaid for the 1968 fiscal year ending July 1, 1968.

THE ADMINISTRATION said the initial appropriation proved inadequate because of a complete lack of data and experience as to costs of such a program and a larger increase than expected in costs of hospital and other medical care. ◄

INDIANA MEDICAL BUREAU
816 Hume Mansur Bldg.
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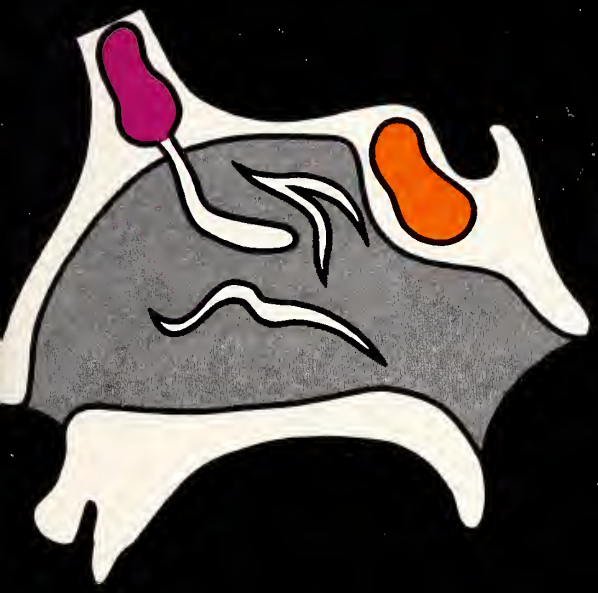
A Licensed Employment Agency
Specializing in Medical Personnel

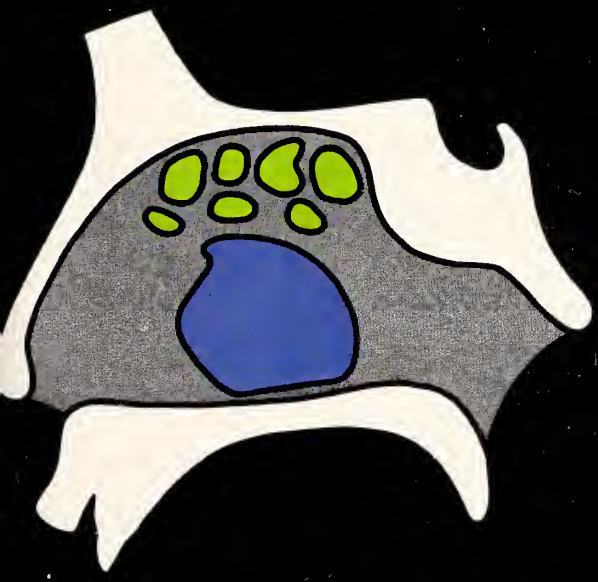
Our 17th Year Of Service

Sources of sinus headache



REGION OF SENSATION

FRONTAL SINUS—headache localized over the frontal region, commonly beginning in the morning. Eyes painful to touch, may be slight swelling over eyes, puffy eyelids.
SPHENOID SINUS—most difficult to diagnose. Headache or sense of pressure over vertex. May be pain in ear or mastoid region.



MAXILLARY SINUS—headache and tenderness under eyes at top of cheekbones, usually starting in early afternoon. Possible swelling of cheek. Pain in jaw and back teeth.
ETHMOID SINUS—headache, tightness in upper part of bridge of nose and well down its sides. Pain, deep-seated behind the eyes and in inner corners of the eyes.

TURBINATES—pain along medial and lateral walls of the inside of the nose. Headache in frontal region, along supraorbital ridge, a feeling of fullness in the head.

Source of symptomatic relief

SINUTAB

Sinus headache is often a reflection of congestion in the nasal mucosa. The pain that results in the various regions of the head may help in determining the particular structure(s) responsible. The Sinutab formula is specifically designed for symptomatic relief of sinus headache and nasal congestion. **Sinutab** *not only* **provides an effective decongestant** — to reduce mucosal engorgement and facilitate freer breathing — *and* **an antihistamine** — to help reduce edema and excessive secretions — but it *also* provides, in contrast to other leading decongestants, **two analgesics** for immediate relief of pain and discomfort.

And, too, the Sinutab dosage schedule of 2 tablets, *q.* 4 *h.* permits controlled and continuing analgesic relief.

Adverse Reactions: Epigastric distress, drowsiness, dizziness, insomnia and nervousness.

Precautions: Instruct patients not to drive or operate machinery if drowsiness occurs. Use with caution in patients with thyroid disease, heart disease, hypertension, diabetes or kidney disease. Excessive dosage or prolonged use may cause kidney damage.

Dosage: Adults—2 tablets every 4 hours.

Each tablet contains 150 mg. acetaminophen, 150 mg. phenacetin, 25 mg. phenylpropanolamine HCl, and 22 mg. phenyltoloxamine citrate.

SPECIFIC FORMULA

SINUTAB®

FOR SINUS HEADACHE

Also Available on Prescription:

Sinutab® with Codeine.* Each tablet contains 15 mg. (¼ gr.) codeine phosphate (Warning: May be habit forming), 150 mg. acetaminophen, 150 mg. phenacetin, 25 mg. phenylpropanolamine HCl, and 22 mg. phenyltoloxamine citrate.

Sinutab® Pediatric Suspension. Each 5 ml. teaspoonful contains 300 mg. acetaminophen, 12.5 mg. phenylpropanolamine HCl, and 10 mg. phenyltoloxamine citrate.

*Subject to Federal Narcotics Regulations.

For 1 complimentary bottle of 30 Sinutab tablets, write: J. S. Travis, Warner-Chilcott Laboratories, Morris Plains, N.J. 07950. Please mention this journal.

S-IN-81-4C

WC WARNER-CHILCOTT Morris Plains, N.J.

What's New?

A lightweight but tough synthetic rubber that is pliable when heated so it can be molded around a limb, hardens in moments and retains its shape and rigidity, has been introduced by Johnson & Johnson. The amount of heat necessary to produce pliability is not uncomfortable to the patient during application. It is available in sheets of 20 x 12 inches and cuts easily with scissors. A pattern may be made of paper and modified to fit the part to be splinted to insure the proper shaping of the rubber prior to use.

* * *

Pfizer is introducing a new broad-spectrum antibiotic, Vibramycin, characterized not only by its broad spectrum of effectiveness, but also by a high rate of absorption from the GI tract and by a slow rate of excretion. Effective blood levels are achieved by one-tenth the dosage usually used for tetracycline. Vibramycin is not affected by the intake of food or milk and may be taken at any time of the day. Recommended dosage is two 100 mg. doses the first day followed by one 100 mg. dose daily thereafter. Adverse effects are said to be of minimal incidence.

* * *

Copies of the paperback edition of "Wilbur J. Cohen—The Pursuit of Power" by Marjorie Shearon may be obtained at the single copy price of $3.50 or five copies for $15.00 by writing the Shearon Legislative Service, 8801 Jones Mill Road, Chevy Chase, Md. 20015. The book contains revelations which, it is reported, ordinarily would result in court action, prevented in this case by the fact that court action would reveal even more embarrassing details.

* * *

The 'Doptone' Blood Flow Detector, introduced last year by Smith Kline Instrument Company, now has a new use in diagnosing and evaluating common diseases of the veins of the leg. The portable, ultrasound instrument was introduced for detecting arterial obstruction. The 'Doptone' method of vein diagnosis is said to be accurate and simple, and skill in its use is easily acquired. There is also a 'Doptone' Fetal Pulse Detector for use in obstetrics. Both instruments employ the "Doppler effect" which is the observation of a change in frequency of waves when the source of the waves is in motion.

* * *

News of what is new in the medical supply industry is composed of abstracts from news releases by manufacturers—of pharmaceuticals, clinical laboratory supplies, instruments, and surgical appliances and book publishers. Each item is published as news and does not necessarily constitute an indorsement of a product or recommendation for its use by THE JOURNAL or by the Indiana State Medical Association.

What can be done for Susan Jane To stop the runs and crampy pain?

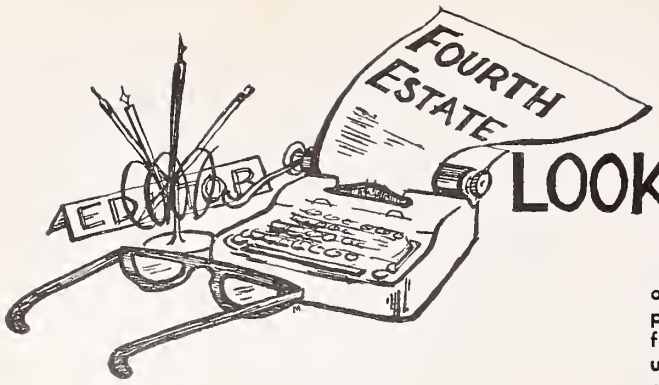
Parepectolin for quick relief of acute diarrhea
...soothes colicky pain with paregoric
...consolidates fluid stools with pectin
...adsorbs irritants with kaolin, and protects intestinal mucosa.

In children, Parepectolin may be used to control diarrhea promptly and prevent dehydration, until etiology has been determined. In some cases, Parepectolin may be all the therapy necessary.

Parepectolin®

Each fluid ounce of creamy white suspension contains:
Paregoric (equivalent).....(1.0 dram) 3.7 ml.
Contains opium (¼ grain) 15 mg. per fluid ounce.
warning: may be habit forming
Pectin ..... (2½ grains) 162 mg.
Kaolin (specially purified)....(85 grains) 5.5 Gm.
(alcohol 0.69%)
Usual Children's Dose: One or two teaspoonfuls three times daily.

RORER
WILLIAM H. RORER, INC.
Fort Washington, Pa.



LOOKS AT MEDICINE

This section of THE JOURNAL is devoted to the presentation of opinions which appear on the editorial pages of the public press, and which are of interest to the medical profession. Its function is to review comments which may be favorable or unfavorable to medicine. Members are invited to submit editorial clippings for this column.

Dial 911 For Help

The plan to make 911 a virtually nationwide telephone emergency telephone number is a good one.

In an emergency, a caller could use a pay phone, without inserting a coin, to call police, the fire department, other law enforcement agencies or for medical aid or other special service.

American Telephone and Telegraph Company plans to make this emergency number universal in the Bell System, which operates most of the nation's telephones. It hopes to have it working in several major cities this year. The company expects to make it universal in the Bell System within about three years.

A caller will dial 911 and get a special operator who will relay the call for help to the police, fire department or other emergency service needed. This will do away with the confusion of having to dial any of numerous other long, hard-to-remember numbers which may change from time to time and are different in different communities and areas.

It will also do away with the unfortunate and sometimes tragic life-and-death factor of being unable to place an emergency call from a pay phone for lack of a coin.

It can speed the apprehension of criminals in the act and the summoning of firefighters and ambulances. There is no telling how many lives it will save, but the number is bound to be considerable.

The saving of lives and property is certain to be worth far more than the $50 million the system will cost, which will be borne by the Bell System and its customers.

We hope that other telephone companies which are not part of the Bell System will arrange for similar emergency phone service.

The original idea came from the President's Crime Commission. AT&T decided to act upon it at the prompting of the Federal Communications Commission.

This is an example of creative thinking dealing with a serious nationwide problem.—*Indianapolis Star*, Jan. 15, 1968.

Medicaid Mess

Indiana was let down easy last year when Gov. Roger Branigin vetoed a bill that would have dealt our state in on the so-called "medicaid" program offered by the Federal government.

"Medicaid" is a spin-off from the national Medicare program which allows people of any age, under a given income level, to secure state-paid medical services. Washington pays half and the state and local government units split the other half.

Protests against getting Indiana involved in such a thing, from this newspaper and others, were ignored by the General Assembly. It was only through the good sense of Gov. Branigin that our state has been spared participation in what is now becoming a fiscal nightmare.

Clearest proof of "medicaid" evils is the state of New York, where the rush to get "free" medical services is bankrupting local taxing units. New York counties have found that, in order to pay their "medicaid" bills, they had to cut back essential community services.

John Mulroy, a county government official in New York, stated recently: "I had to cut the sheriff's office, strip the highways department, halt work in the parks, and stop all salary increases, all to pay medicaid bills." A councilman in Auburn, N.Y., said: "Our road program was cut in half, our police department has been curtailed, and there is no end in sight."

A spokesman for the county government in Clinton County, N.Y., similarly asserted: "In 1965, our welfare costs were about $240,000. By the end of this year (1967) we estimate that our welfare costs, including the medicaid program, will have risen to $4 million." Like comments have come from other local government officials across the Empire state.

Why has this rush to disaster occurred? The answer is that, despite all the talk about "need" and strict supervision, a lot of people are trying to get "medicaid" benefits simply because they are free. The mayor of Poughkeepsie tells a story, for example, of a couple in his town who had money set aside to pay for expensive dental work for their son, but got the same work "free" through "medicaid." So they went out and bought a new car with their surplus money.

Says one weary city official striving to keep financial crisis away: "We know of too many people able to pay medical bills who are on medicaid and spending their money on boats and automobiles." So long as a service can be had for "free," it is reasonable to assume a lot of people are going to seek that service even if they can afford it on their own.

The obvious point is that the Federal welfare planners have not succeeded in repealing human nature—only in giving it fresh opportunities to disport itself. The result is to put "medicaid" states on the road to financial ruin. Let us be thankful Indiana is not one of them.—*Indianapolis News*, March 8, 1968.

Big Brother At The Drug Store

There is something more than just glaring inconsistency in President Johnson's proposal for measures to hold down drug prices, contained in a message requesting $2 billion worth of increases in Federal spending in the area of health programs.

The inconsistency is in the fact that recklessly extravagant government spending is the principal cause of the trend of rising prices. If the administration is truly concerned about prices—of drugs, breakfast food or whatever—its first step should be to start trimming the fat out of Federal spending and to design balanced budgets.

The drug move is part of current revival of the campaign against brand-name products. Senate committee hearings and administration statements have again produced batches of figures to prove the unsurprising fact that brand-name products usually sell at higher prices than allegedly similar products under the generic names of the ingredients.

For years the campaigners have been looking for a way to force doctors and pharmacists to use the cheaper unbranded products. The President's current proposal is that standards of "reasonable" prices be established, and that government payments for drug products under medicare and other programs be limited to these prices. We don't need a crystal ball to figure out that these "reasonable" prices would be those of the generic-name products. The obvious hope is that this pressure would wreck the market for brand-name products.

This is a patterned response. The government is concerned about the costs of medicine, so the purchasing practices of the public should be forced into the mold of what the government thinks is good. The government very tardily began to worry about the balance of payments, and responded with restrictions on private investment and requests for more restrictions, taxes on foreign travel and so on. The government was convinced that consumers were being hoodwinked by the sizes and shapes of grocery packages, so Congress was persuaded to enact power to regulate package sizes and shapes. And so it goes.

The choices of the people are being more and more limited to what the government thinks is good for the people.

Getting back to prices, nowhere is this pattern more evident than in the constant effort to increase the proportion of the people's money which the government takes in taxes, on the argument that the government can spend this money on behalf of the people better than people can spend it themselves.—*Indianapolis Star*, March 6, 1968. ◄

INDIANA UNIVERSITY SCHOOL OF MEDICINE LIBRARY
TELETYPE SERVICE

Physicians in over 140 Indiana communities outside of Marion County who do not have direct access to the library may request specific references or bibliographic searches from the Indiana University School of Medicine Library by merely calling their local public libraries and asking that the request be placed by TWX. There is no charge for the teletype call.

Xeroxed copies of the first 20 pages of any one article are gratis. If an article is over 20 pages, a ten cent charge is made for each additional exposure.

For further information write to: Indiana University, School of Medicine Library, Reference Department, 1100 W. Michigan St., Indianapolis, Indiana 46207.

Letters

to the editor

February 23, 1968

To the Editor:

I am writing to you in both anger and alarm. I am concerned with an ever increasing encroachment upon the physician's time. I have complained at home and have gotten no reply. I feel surely somewhere in this state there must be many more physicians who feel as I do.

First, let me say that I believe in good records. I have always endeavored to maintain these. However, the amount of paperwork now thrust onto us has become the millstone around our necks. I read in the latest *Medical Economics* that "dictated but not read" is an inexcusable error; in the last *ISMA Journal* that doctors are "grouchy" most all the time. There should be no wonder. As the burgeoning weight of bureaucracy slowly strangles the free enterprise of medicine, the doctor's role in the hospital has degenerated to the level of any other technician.

There is much emphasis on his ability to sign endless forms, and make duplicated efforts at dictation ceaselessly, fill out insurance and medicare forms and somewhere in all this red tape find time to administer of himself and his services to his patients. The "time off" he may have is usually necessarily tied up in "catch up" work in the records room, rather than for study or rejuvenation of his frayed body and spirit. I suggest to you that some of these records may be less than accurate or enlightening if they were ever seriously reviewed.

The particular "sore point" that triggered this letter is the new birth certificate. It should record and identify a live birth. I strenuously object to the remainder of the form. I see no reason for the state to need such trivia as her last normal period or the number of visits she made to the doctor. I object to spending my time this way. I object to spending my taxes this way and I certainly object to any of my state society dues being spent this way. All this information is recorded elsewhere in the patient's chart.

If the state medical society wants to become involved politically, this might be one place to start "cleaning house." I should like to support someone whom I felt would like to see less government involvement in local affairs. If this is truly part of the platform, let's liberate the doctor so he can be a civic leader.

Sincerely,

SAMUEL W. MARTIN, M.D.

Corydon

January 24, 1968

To the Editor:

The ability of physicians to maintain life for very long periods in the unconscious patient raises the question as to how long such skills should be deployed. As physicians we are eager to promote the recovery of everyone who can do so. In order to deprive no one of his chances on this score it is relevant to know the longest periods of coma which have been followed by useful survival.

A committee of the Massachusetts General Hospital is studying our own records and the world literature to determine pertinent features in all patients who, *despite coma for over five weeks,* have made a useful recovery. We think it is vital not to overlook any well documented patient in this category. We should be grateful if any reader of this journal would draw our attention to any case published under a title which is not indicative of survival after prolonged coma. We are also eager to receive accounts of such cases as yet unreported. A publication incorporating our own and others' data is planned.

We should be grateful if you would publish this letter in your journal either in a section for correspondence, as a special brief communication, or in any other fashion you see fit.

Sincerely yours,

WILLIAM H. SWEET, M.D., D.Sc.

Chief, Neurosurgical Service

Chairman, Committee on Management of the Unconscious Patient

Massachusetts General Hospital

Boston, Massachusetts 02114 ◄

who goes for checkups?

A vital question. For if early diagnosis and treatment can cure cancer, obviously regular health checkups are essential.

In a survey conducted for the Society, we discovered that only 26% of those questioned had such regular checkups.

But 90% said, *if their physicians told them to do so,* they would have annual checkups. This confirmed what we have long known—your key role, doctor, in *activating* your patients in good health practices.

We alert the public with facts about cancer.

You follow through by urging regular checkups.

A life-saving combination.

AMERICAN CANCER SOCIETY

Indiana Division, Inc., 445 N. Pennsylvania St., Indianapolis 46204

Mead Johnson—pharmaceuticals created for your specialized clinical needs

She can expect to continue Oracon for years

ORACON®

16 White—Ethinyl Estradiol, 0.1 mg. Tablets; 5 Pink—Dimethisterone, 25 mg., and Ethinyl Estradiol, 0.1 mg. Tablets

Only 4.4% of patients taking Oracon discontinued it because of side effects

ORACON in a total conception-control program. Generally, withdrawal bleeding is comparable to her usual menstrual flow, even after prolonged use. Incidence of amenorrhea was less than 1% in original studies. Breakthrough bleeding occurred in only 1.5% of full cycles completed, and intractable monilial vaginitis was not reported.

Patients can continue ORACON comfortably. For years. Although a cause and effect relationship has been neither established nor disproved, alertness to the possibility of serious occurrences such as thromboembolism is necessary in any program with any oral contraceptive. Contraindications, medical ramifications, and long-range considerations in the use of ORACON, the same as those for all oral contraceptives, follow.

Mead Johnson also offers these important prerequisites for success in a conception-control program: information for the patient to help her understand conception control; and packaging to guide her in using the product correctly, according to your directions.

to guide you in prescribing ORACON

Indication: Oral contraception.

Effectiveness: Although some pregnancies have occurred while on therapy, oral contraception is the most effective method known.

Mechanism of Action: Gonadotropin suppression.

Contraindications: Thrombophlebitis, history of thrombophlebitis or pulmonary embolism; liver dysfunction or disease; known or suspected carcinoma of breast or genital organs; undiagnosed vaginal bleeding.

Warnings: Discontinue medication pending examination if there is sudden partial or complete loss of vision, or if there is a sudden onset of proptosis, diplopia, or migraine. If examination reveals papilledema or retinal vascular lesions, medication should be withdrawn. Since the safety of ORACON in pregnancy has not been demonstrated, it is recommended that for any patient who has missed two consecutive periods, pregnancy should be ruled out before continuing the contraceptive regimen. If the patient has not adhered to the prescribed schedule, the possibility of pregnancy should be considered at the time of the first missed period. Detectable amounts of the active ingredients in oral contraceptives have been identified in the milk of mothers receiving these drugs. The significance of this to the infant has not been determined.

Precautions: The pretreatment physical examination should include special reference to breast and pelvic organs, as well as a Papanicolaou smear. Endocrine and possibly liver function tests may be affected by treatment with ORACON. Therefore, if such tests are abnormal in a patient taking ORACON, it is recommended that they be repeated after the drug has been withdrawn for two months. Under the influence of estrogen-progestogen preparations, pre-existing uterine fibromyomata may increase in size. Because these agents may cause some degree of fluid retention, conditions that might be influenced by this factor, such as epilepsy, migraine, asthma, cardiac or renal dysfunction, require careful observation. ORACON should be used with caution in patients with a history of cerebrovascular accident. In relation to breakthrough bleeding, as in all cases of irregular bleeding per vaginam, nonfunctional causes should be borne in mind. In cases of undiagnosed vaginal bleeding, adequate diagnostic measures are indicated. Patients with a history of psychic depression should be carefully observed and the drug discontinued if the depression recurs to a serious degree. Any possible influence of prolonged ORACON therapy on pituitary, ovarian, adrenal, hepatic or uterine function awaits further study. A decrease in glucose tolerance has been observed in a small percentage of patients on oral contraceptives. The mechanism of this decrease is obscure. For this reason, diabetic patients should be carefully observed while receiving ORACON therapy. Because of the occasional occurrence of thrombophlebitis and pulmonary embolism in patients taking oral contraceptives, the physician should be alert to the earliest manifestations of the disease. Because of the effects of estrogens on epiphyseal closure, ORACON should be used judiciously in young patients in whom bone growth is not complete. The age of the patient constitutes no absolute limiting factor, although treatment with ORACON may mask the onset of the climacteric. The pathologist should be advised of ORACON therapy when relevant specimens are submitted.

Side Effects: The following adverse reactions have been

continued on next page

observed in patients receiving oral contraceptives: nausea, vomiting, gastrointestinal symptoms (such as abdominal cramps and bloating), breakthrough bleeding, spotting, change in menstrual flow, amenorrhea, edema, chloasma or melasma, breast changes (tenderness, enlargement, secretion), change in weight (increase or decrease), changes in cervical erosion and cervical secretions, suppression of lactation when given immediately post-partum, cholestatic jaundice, migraine, rash (allergic), rise in blood pressure in susceptible individuals, mental depression. Although the following have been reported as side effects in users of oral contraceptives, no cause and effect relationship has been established: anovulation post-treatment, premenstrual-like syndrome, changes in libido, changes in appetite, cystitis-like syndrome, headache, nervousness, dizziness, fatigue, backache, hirsutism, loss of scalp hair, erythema multiforme, erythema nodosum, hemorrhagic eruption, itching. Post-marketing experience with ORACON has revealed that hypermenorrhea and acne may also occur. The following occurrences have been observed in users of oral contraceptives. A cause and effect relationship has neither been established nor disproved: thrombophlebitis, pulmonary embolism, neuro-ocular lesions. The following laboratory results may be altered by the use of oral contraceptives: increased sulfobromophthalein and other hepatic function tests; coagulation tests (increase in prothrombin, Factors VII, VIII, IX, and X); thyroid function (increase in PBI and butanol extractable protein bound iodine and decrease in T^3 values); metyrapone test; pregnanediol determination.

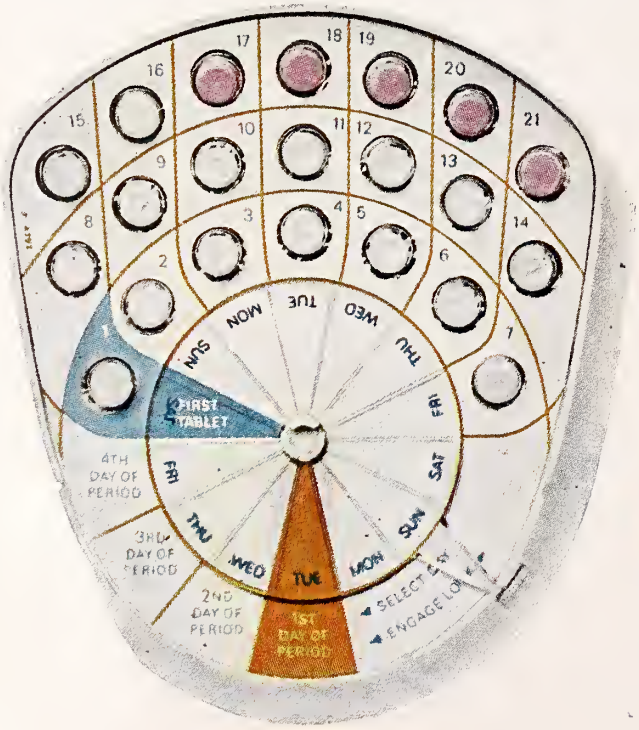
Administration: Counting onset of menses as Day 1, the patient starts medication on Day 5 of the cycle and takes one white tablet daily from Day 5 through Day 20, then one pink tablet daily from Day 21 through Day 25. Patients should be cautioned to follow the dosage schedule strictly. Evening administration is suggested. An additional contraceptive method is recommended for the first 7 tablet days of the first cycle of ORACON usage. If the regimen is interrupted, for the fullest possible protection an additional contraceptive method is recommended for the rest of the cycle. If flow should not occur by the 7th day after taking the last pink tablet, the next course of therapy should be initiated on that day, thereby allowing 6 full days without medication. Some physicians prefer to stipulate that the patient never allow more than 6 unmedicated days to elapse between cycles regardless of the time of onset of withdrawal bleeding. If two consecutive periods are missed, the possibility of pregnancy should be considered and the patient should report to the physician. However, pregnancy should be suspected at the first missed period if the patient has deviated from instructions. For those few occasions when breakthrough bleeding occurs, the following recommendations are made: (a) Spotting. Continue medication. (b) Menstrual-type flow. Discontinue medication and begin a new medication cycle on the fifth day. Because of the rarity of frank breakthrough bleeding, especially after the first few cycles, it is not necessary to provide the patient with additional tablets to allow for doubling the dose. Recurring breakthrough bleeding, particularly after the first few cycles, should be reported to the physician for further investigation. Because of the common occurrence of increased cervical mucus, it is recommended that the patient be apprised of this possibility.

Availability: ORACON is available as 16 white and 5 pink tablets. Each white tablet contains 0.1 mg. of ethinyl estradiol; each pink tablet contains 25 mg. of dimethisterone and 0.1 mg. of ethinyl estradiol. Each month's supply includes patient instructions. Complete details on ORACON are available from Mead Johnson Laboratories.

to guide her in understanding and using conception control

A discussion of conception control for brides, "To Plan for a Lifetime, Plan with Your Doctor," is one of several booklets available through your Mead Johnson representative or directly from Mead Johnson Laboratories.

The Pakette® dispenser helps prevent patient error by showing her when to start her tablets and when to take every tablet all month long.



in the Pakette® dispenser

ORACON®

16 White—Ethinyl Estradiol, 0.1 mg. Tablets; 5 Pink—Dimethisterone, 25 mg., and Ethinyl Estradiol, 0.1 mg. Tablets

Mead Johnson
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59668

From *The Journal* 50 Years Ago

. . . When we attempt to discuss the function of the tonsil, we are getting upon a debatable and controvertible field. Why does it exist? Why has nature bestowed upon us an organ so prolific of harm? It must have, or have had, some function. You are all familiar with the theories that in early life the tonsil is a blood forming organ, manufacturing the red blood cells; that it is the source of the leukocytes; that it secretes an internal secretion similar to the thyroid; and the common but faulty impression among the laity that it is necessary to produce the tone of voice, particularly the singing voice. The most commonly accepted, and to me the most plausible, theory is that the function of the tonsil is that of protection, and particularly in infancy and up to the age of 6 or 8 years. At birth the gland is small and reaches its full development at about the age of 6, and then begins to atrophy. I am speaking of the normal gland. If this theory is correct, great conservatism should be used in advising the removal of the tonsil before the age of 6 years.

The adenoid consists of the same lymphatic tissue as the tonsil and is arranged in three or more lobes in the vault of the nasopharynx. At this point I would like to point out that the only definite and certain method of ascertaining the presence of hypertrophied adenoid tissue in the young child is by digital examination. It is a simple matter to grasp the child's head with the left arm, compress the cheek between the teeth with the thumb of the left hand to prevent the patient from biting your finger, and insert the index finger of the right hand behind the soft palate. It can be done in an instant and gives you more accurate knowledge than can be obtained with the mirror in an hour, even if you are able to see at all . . . .
J. W. Iddings, M.D., Lowell, "Tonsillectomy and Adenectomy," *JISMA*, April, 1918.

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Supervised by THE COUNCIL
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Hodgkin's disease is best treated by radiation. Long-term survival is now common enough to suggest cure in some cases.

Radiotherapy of Hodgkin's Disease*

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HODGKIN'S disease is a frustrating, but fascinating pathological entity comprising about one-third of the lymphomas. Male to female incidence is cited as 2 to 1 with female having the best prognosis. It is most common in the third and fourth decades, but all ages are affected. The initial appearance is in lymph nodes in 80 to 85% of cases, more than half being in the cervical or supraclavicular areas. About 10 to 15% have extra nodal origin. In over half the cases, spread seems to be by direct lymphatic extension, but the possibility of multiple sites of origin has not been excluded.

Apparently it is a true neoplastic disease, but a bacterial and/or viral etiology has not been excluded. Symptoms such as chills, fever, sweats, weight loss, anemia and the rare, but occasionally seen, spontaneous remission all suggest infection. The frequent association with herpes zoster suggests viral linkage. The histology is that of a granulomatous disease. Sporadic cases in mothers and newborn offspring have introduced the question of hereditary factors. A high incidence of anergy to allergens which cause a delayed type of skin reaction is common in this condition. This is often seen in the late stages of other malignant diseases, but occurs early in Hodgkin's disease. It disappears when the disease is under control.

Most pathologists continue to classify Hodgkin's disease into categories of paragranuloma, which is the most benign type, granuloma which is the most common type and sarcoma which is the least common and most malignant. Lukes et al.[2] have proposed a classification which takes into account the predominant cell type. This may have more prognostic significance. Whatever the classification used, the most important factor, both in treatment planning and prognosis, is the clinical stage of the disease when diagnosed.

Clinical Staging

The system most commonly used in the past, and the one on which most survival statistics are based, is that proposed by Peters.[3] Here involvement of a single site or area represents Stage I, involvement of two or three proximal lymphatic regions is Stage II, and two or more distant lymphatic regions Stage III disease. All three stages are further classified as A or B depending upon the presence or absence of systemic symptoms.

Recently a new system has been introduced[1] which has more prognostic significance. It is as follows:

Stage I —Disease limited to one anatomical region or to two contiguous anatomical regions on the same side of the diaphragm.

Stage II —Disease in more than two anatomical regions or in two non-contiguous regions on the same side of the diaphragm.

Stage III—Disease on both sides of the diaphragm, but not extending beyond the involvement of lymph nodes, spleen, and/or Waldeyer's ring.

Stage IV—Involvement of the bone marrow, lung pa-

* Presented at the 118th annual convention of the Indiana State Medical Association, Indianapolis, Indiana, October 10, 1967.

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renchyma, pleura, liver, bone, skin, kidneys, gastrointestinal tract, or any tissue or organ in addition to lymph nodes, spleen or Waldeyer's ring.

All stages will be subclassified as A or B to indicate the absence or presence, respectively, of systemic symptoms. Unless otherwise explained, anemia, night sweats and pruritis are considered significant systemic symptoms.

For accurate clinical staging the following studies are considered desirable:

1. Careful history with special attention to the systemic symptoms previously mentioned. Chronicity also has prognostic significance.
2. Complete physical examination.
3. CBC including WBC, differential, hemoglobin or hematocrit, and platelet count.
4. PA and lateral chest films. Tomograms may be helpful when hilar adenopathy is present.
5. Skeletal survey if feasible; as a minimum, an examination of the thoracolumbar spine and pelvis.
6. Retroperitoneal studies to include lower extremity lymphangiography whenever possible, and at least excretory urography.
7. Bone marrow examination.
8. Liver function studies to include a serum alkaline phosphatase.
9. Renal function studies including a urinalysis.
10. Documentation of cutaneous anergy. Dinitrochlorobenzene antigen.

Can It Be Cured?

The medical dictionary still defines Hodgkin's disease as an invariably fatal disease, but this appears to be in error. Considerable evidence exists for the possibility of cure and properly treated cases have a prognosis which equals or betters most other malignant diseases.

The survival figures of Peters[3,4] are among the best published, but are typical of what can be achieved today. Using the Toronto staging system, her figures state that in untreated cases, the median five year survival is six percent. For treated cases, this figure is approximately 35%, depending on the sample of cases. Stage I and Stage II cases gave a 70% five-year survival and 48% ten-year survival. Of the Stage II cases, 28% survived five years and 14% ten years. In Stage III cases, 10% survived five years and two percent ten years.

Treatment

While the possibility of cure remains questionable to some, few question the fact that radiotherapy is the treatment of choice in most cases. In the early stages, radical treatment usually results in a long symptom-free survival with a low incidence of recurrence in the treated areas. Furthermore, many cases with disseminated disease can be carried long periods of time by irradiating multiple foci of disease or new areas as they appear. This is palliative radiotherapy in its best sense. Chemotherapy or treatment with steroids is reserved mainly for cases beyond the scope of control by irradiation or occasionally in conjunction with it.

Technics of Irradiation

Choice of Energy

The relative radiosensitivity of Hodgkin's disease, its common superficial location and the fact that large areas are usually treated, permits adequate irradiation with orthovoltage technics in many cases. Still, skin sparing, decreased energy absorption in bone, increased relative penetration and decreased integral dose are physical advantages which make megavoltage technics preferable when available. Re-treatment through previously irradiated skin, treatment through growing epiphyses in children or treatment of bony deposits of disease make megavoltage almost mandatory.

Volume Considerations

Local and systemic tolerance to radiotherapy varies inversely with the volume of tissue treated. The relatively low dose given in Hodgkin's disease permits treatment of localized disease by large regional portals with wide margins. Also in localized disease, the question arises as to whether one should treat the next apparently uninvolved node group. In over 50% of cases, spread occurs in this fashion and clinical detection of such spread is often difficult. The best published results are from institutions following this policy. When the site of the disease and the patient's condition permit, such course seems advisable.

If the disease becomes generalized, the policy changes from a curative to a palliative approach. Smaller areas are treated and many areas may be treated separately. One attempts to conserve his patient's tolerance to allow treatment of new foci of disease as they appear. The exercise of good judgment in this respect can result in the highest order of palliative radiotherapy with a significant prolongation of useful, comfortable life for many patients.

Time-Dose Factors

The interdependence between total length of a course of irradiation and the total dose necessary is a well established fact. When fractionation is increased, the dose of irradiation must also be increased for the same tumorcidal effects. Protraction also increases tolerance and empirically seems to improve results. Tumor extent and the patient's general condition usually determine the total dose and the time which sensibly

can be spent in administering it. Low doses may result in apparent tumor regression only to have recurrence in the treatment site, often in the presence of needed irradiation elsewhere. Each area to be treated, whether localized or generalized, must be approached as a conclusive course. Therefore, a time-dose schedule which will potentially assure a cure in localized disease and at least prevent local portal recurrence in advanced disease is desirable.

With a view to determining an optimal time-dose schedule we have studied several hundred cases treated by radiotherapy.[5] Cases were selected where the diagnosis was definitely established by biopsy, where no previous treatment had been given, where no chemotherapy or steroid therapy was administered during the follow-up period and where the treated lesions showed no evidence of local recurrence over a three-year-period. Evidence of recurrence was based on clinical and radiographic findings. Pathological sub-classes were not considered since not enough material for groups of significant size was available. Furthermore, fairly frequent transitions from one type to another were found in the biopsy material. Portal location was documented to be certain that any areas of recurrence were not outside the treatment area. The dose was expressed in roentgens along with the central axis of the beam and represented the minimal tumor dose as assessed by the treating physician.

Choice of energy influences the total dose, inasmuch as orthovoltage and supervoltage have different relative biological efficiencies, the latter requiring a somewhat higher dose for the same effect. Thus, we differentiated between the two when attempting to plot a time-dose curve. Seventy-five successfully treated orthovoltage cases were found. These were plotted on log-log paper and a least-square fit line drawn through them. Only 9 of 109 or eight percent of the recurrences fell above this line. None fell above a single standard deviation. At the time of the study we had only 15 successfully treated megavoltage cases so the line plotted here is open to more question. Several things lend it credence, however. First, the slope of the line is essentially the same as the orthovoltage cases. Its position is higher as expected due to the differences in relative biological effectiveness. Finally, as a test of the validity of the line, 29 of 31 recurrences are below the line. Thus, we feel that these lines do represent a good guide as to an optimal time-dose relationship and from there, we have evolved some arbitrary dose schedules. For radical treatment, treating five days a week with daily equal fractions, we usually give a total dose of 4000r with megavoltage or 3000r with orthovoltage in 28 elapsed days. This is when treating localized disease and going for "cure." Large regional portals are used as previously outlined.

With locally advanced disease, high grade palliation is the usual aim, but long term control is not out of the question. Large volumes may still be treated, but usually with smaller margins. In this category of disease, we usually give doses of 3200r with megavoltage and 2300r with orthovoltage in two elapsed weeks.

With more advanced disease, where many areas may have to be treated separately, the policy becomes smaller treatment areas, lower doses and shorter times. Doses on the order of 2300r with megavoltage or 1750r with orthovoltage in five days, or 1000r with megavoltage or 800r with orthovoltage in a single exposure are commonly used. Time-dose schedules of this order have resulted in a recurrence rate in the treated area of less than 10%.

Care of the Patient

As a preliminary to treatment, the patient must be made to fully understand the need for his prolonged period of treatment and its unavoidable adverse side-effects. Time devoted to gaining his confidence and cooperation is well spent. A justified degree of optimism is helpful in this respect.

Some of the most trying reactions are met in the radical treatment of the head and neck region. Dryness of the mouth, loss of taste, soreness of the lips, mouth and pharynx with consequent difficulty in maintaining adequate nutrition is a common problem. Bland, high caloric liquid or soft diets are necessary. Smoking and the use of alcohol should be avoided. Proprietary mouth washes should not be used. Analgesics may be necessary in the latter stages of the treatment and the period shortly thereafter. The dysphagia will disappear in two or three weeks, but the aberrations in taste and the dryness of the mouth are slower to subside. Treatment of the mediastinum may cause radiation esophagitis requiring the same attention. Skin reactions are not a serious problem at the dose levels used, even with orthovoltage. Hyperuricemia is a commonly cited complication of treating large volumes of radiosensitive disease and will be seen occasionally. It has not been a common problem with us.

"Radiation sickness" is seldom a problem except when large areas of the abdomen are given large daily doses. Adjustment of the daily increment and the occasional use of antiemetic drugs will usually prevent interruption of treatment. High doses to the abdomen may result in diarrhea which also may require some adjustment and the use of antidiarrheic agents. Some depression of the blood count is inevitable when large volumes of bone marrow must be included in the treatment field. Anemia secondary to the treatment will rarely necessitate termination of the course of irradiation. One can safely continue if the white blood count does not drop below 2000 or the platelet count below 100,000.

Fever, pruritis, severe weakness and lassitude, and profound, intractable anemia are signs and symptoms of advanced disease usually calling for treatment by chemotherapy or steroids. It should be noted, however, that pruritis is often secondary to involvement of the nodes in the region of the celiac axis and irradiation of this area often gives relief.

Method of Follow-up

A close follow-up of each case after treatment is essential. Every two to three months a detailed history and physical examination is performed, blood counts obtained and any special studies ordered which may seem indicated. Chest x-rays should be repeated frequently. This permits early detection and treatment of new or recurrent disease. It also serves to reassure the patient and give him encouragement to carry on a useful, productive life. Thus, Hodgkin's disease, which in the past has been looked upon as invariably fatal, lends itself extremely well to treatment. at times even in advanced stages. Actually, its prognosis far exceeds that of many types of neoplastic disease.

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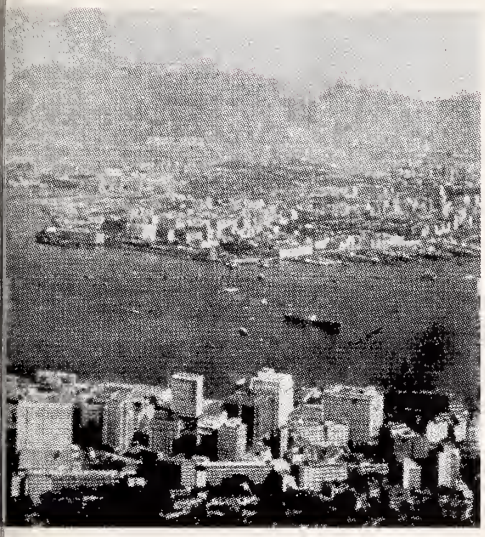

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Natural and Acquired Immunity to Cancer*

HENRY G. HADLEY, M.D.
Washington, D.C.**

THE present direction of cancer research has resulted from the theory that genes, nucleic acid and viruses are equivalent. Actually this concept is only a hypothesis as by Newton's unpublished fifth rule, they are things which neither can be demonstrated from the phenomena, nor follow from them by an argument of induction.

These theories, by a general agreement of the cancer research fraternity, are almost exempt from any investigation as they fit their general concepts of the chemical theory of life and the relativity of matter. While science sometimes is able to achieve success in some areas by first assuming that certain postulates are true, these ideas have resulted in failures in cancer research.

Cancer research has become an establishment by its systematized hypotheses. Its research associations usually do not admit to membership any who do not follow conventional approaches and somewhat limits publication of research in other directions.

While the virus theory has been most thoroughly investigated for over a half a century, no shred of evidence has yet been found to indicate that a virus causes any form of human cancer. For this reason, it would seem that true cancers are not virus-caused because they contain no viruses. Also, while virus diseases in general provide a permanent immunity, the opposite seems true in cancer as shown by the frequent development of additional primaries in individuals having one cancer.

Theoretical Concepts

The theoretical concept is that the viral molecule becomes integrated into a cell genome. As this only represents one part in 300,000, if it is assumed to be the size of an adenovirus, or one to 200,000 if that of a polyoma virus, such proof cannot be obtained as such small amounts are not subject to resolution by our present technics. The various animal tumor viruses, such as leukosis or sarcoma, are easily continually isolated from infected cells. But this only proves that the virus genomes are multiplying independently and does not prove that any genetic mating exists. As viruses may multiply on the cell surface by a *budding off*, the altered antigenicity of the infected cell may be explained by the process and therefore a genetic union cannot be proven.

The so-called DNA virus transformed cell is a term used as an attempted explanation why infectious virus is no longer detectable within either the cell or its progeny. This concept has resulted in the theory that the virus, or even a part of it, has been genetically incorporated into the host cell and thereafter replicated with the cell DNA. While this theory may approximate the explanations of phage production by bacteria, there are differences because it is impossible to demonstrate this production of mature virus by such transformed cells.

It is claimed that messenger-RNA in the polysomes of these cells specifically hybridizes with the virus DNA. This theory that the DNA from both sources genetically unites is not justified, as the whole intact virus would seem to be necessary for such mating to occur rather than merely a conjugation of protein. Hybridization would necessitate considerable virus material to produce the required change.

Different oncogenic viruses are supposed to interact with the various cell types to result in heritable changes constituting cell multiplication. The growth pattern of normal cells is claimed to be altered by new antigens developed by the cell which assume virus characteristics. Several kinds of RNA which may be produced by viruses do not necessarily result from protein self-replication but result from the ordinary metabolic activity of the virus.

Many different forms of mRNA may result from a host virus reaction or be produced with the original virus multiplication. Experimental virus vaccines may contain virus particles which are suspended in an unknown quantity of cellular material which could result in quite unrecognized changes.

Infective Particles

Some plant tumors such as root gall are known to be caused by bacteria, yet the causative organisms

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** Director, Research Foundation, Inc., Washington, D.C.

are not easily identified by intracellular staining. Evidently there are infective particles of bacteria present as they can be grown by culture. In the same way, there may be infective virus particles which may only constitute a small proportion of the whole virus. Because a causative organism cannot be observed by cellular staining of human cancer tissue does not prove that infective particles are not present. An effect on the control of virus and host cell multiplication by either the host cell or virus does not mean that any hybridization has occurred. While virus multiplication may easily be influenced by host reaction, and different metabolic phenomena observed, such findings do not establish a genetic mating of host cell and virus.

In bacterial studies in relation to cancer etiology, there have been innumerable types of known bacteria considered. But as in some other diseases known to be infectious, it has been impossible to prove Koch's postulates. To establish the correct approach. the conditions found to be present in each disease must be accepted. In human cancer, usually in addition to a seemingly necessary long exposure, some hereditary tissue defect or cell injury must be present. Even though a causative organism may be isolated from cancer, it could not be expected to always induce the disease without the necessary presence of this additional factor.

The studies being reported concern the isolation of an organism resembling bacillus cereus which may be cultured by special means from the various types of cancer. In animal experiments by injections of the culture, tumors will develop after a period of several months at the site of inoculation if a carcinogenic agent such as dimethyl-aminoazobenzene is added to the culture. To further establish a causal relationship of the organism to cancer, immunological evidence was secured by both serological reactions and skin sensitization procedures. In addition to these, *the most important proof of relationship* of the bacteria was that a vaccine prepared from a killed culture *prevents* cancer.

These correlations firmly establish an etiological relationship of the bacteria to cancer, and more important, its use as a vaccine for the prevention of cancer proves the theory to be both true and beneficial. The first correlation is that the same organism may be isolated by special methods from all types of cancer and identified in live culture studies by its characteristic type of growth. The reason for not depending on the conventional stain and smear method is that many types of microscopic organisms develop a colonial type of growth and do not remain as individual cells with equal activities. This colonial formation functions for a common purpose and resembles the organization of a complete plant. Its characteristic form of growth provides a more definable identification than can be determined by conventional methods which disturb the relationships between the individual cells.

Materials and Methods

The first cultures were secured by filtering a cancer tissue suspension through a live plant. Several plants have hollow leaf stems. Material will be absorbed from the spaces into the plant circulation. Cultures were obtained from leaf spots which appeared later. Following this it was found that organisms of the same type could be directly isolated from cancer tissue which had been subjected to 95% ethyl-alcohol for 15 to 60 minutes. The time necessary varied with the tumor density and the size.

After the alcohol immersion, tissue fragments were cultured in nutrient broth for identification. After the cultures were identified, two immunological procedures were developed which used antigens prepared from this culture. The serological precipitin tests which produce a characteristic reaction were observed with a chemical indicator, consisting of freshly prepared ¼% phenylhydrazine hydrochloride and an alcohol antigen. This macroscopic precipitin reaction in positive sera was an immediate clouding with shaking at room temperature.

This immunity reaction, when analyzed statistically was sufficiently accurate to prove relation to the disease process and the 20,000 tests performed were sufficient to rule out chance as a factor. Some of the apparent false positives, which showed a reaction when no cancer was evident, could result from the disease being already present but not detected.

The antigen used for skin testing in a series of more than 16,000 individuals was a normal saline extract, sterilized by heat. In this group, the cancer patient had very little or no reaction to the intracutaneous injection of this antigen. The individuals without cancer, however, usually had a definite reaction, consisting of an erythematous area which appeared within 24 hours. This result would seem to indicate that the normal person has *some* natural immunity which becomes lost as cancer develops. Cancer is a disease which apparently destroys immunity to itself as additional primary cancers are more often found in individuals already having cancer than is the incidence of the first primary cancer in the general population.

The statistical correlation of these two reactions to the disease is approximately 85 to 90%. While this degree is somewhat dependent on the stage and type of the disease, it is sufficient in the series of 16,000 individuals to prove by statistical analysis that the results are not due to chance but are definitely related to the disease process.

Vaccination as a Preventive

The most important correlation of this organism to cancer is the effect of vaccination as a preventative. In

CANCER VACCINE RESULTS (17 YRS. USE)

Average Age of Cancer and Noncancer Deaths in Vaccinated Group				Average Age of Cancer and Noncancer Deaths Computed at District of Columbia Rate
Cancer				
58.74	—	First Five Years	—	58.80
66.0	—	Six to Ten Years	—	62.375
69.4	—	Eleven to Sixteen Years	—	64.25
Noncancer				
62.5	—	First Five Years	—	59.5
66.0	—	Six to Ten Years	—	62.9
66.6	—	Eleven to Sixteen Years	—	64.8

Average Age at Death from Leukemia in Vaccinated Group
72.6

Average Age at Death from Leukemia Computed at District of Columbia Rate
51.17

any vaccinated group, all latent or incipient cases of cancer which will later become manifest cannot be excluded. In this series of individuals who received the vaccine during a maximum period of 17 years, it was found that the incidence of cancer very definitely decreases. For the first five years of study, during which skin tests were performed to determine the presence of absence of immunity, it was observed that no new cases of cancer occurred which were not considered to have existed prior to the vaccination.

Because this finding seemed very promising, vaccination was begun in addition to the skin testing procedure, as it was expected that the same immunity would be produced by either method. It was observed, after five years of the testing program, that the incidence of cancer had become less than half the previous rate. In those individuals who did not receive repeated vaccinations, some new cases of cancer were observed after a ten-year period from the single injection. Statistical analysis of these results demonstrate that the decrease in cancer incidence after five years *is the result of the vaccination* and not due to chance.

As there seemed to be a definite decrease in the number of the leukemia cases than those statistically expected, the leukemia deaths were separated from other types of cancer. The proportion was one to 60 of all types of cancer and one to 231 for all other diseases. There were no acute cases of leukemia or any type of leukemia found in the younger age groups. The five cases which occurred were of chronic types and were over the age of 60 years at death, so evidently the disease was present when the vaccine was given.

This proportion is much less than the usual expectation as shown by the vital statistics published which lists leukemia as one in 31 to cancer in Washington, D.C. and one to 207 of all the diseases. In the entire United States, leukemia was one to 21.5 of cancer and one to 133.6 of all diseases.

The most definite proof of the preventive effect of vaccination was the marked increase in the age of death in the vaccinated group, which indicates that the cancer deaths were those of older individuals. This finding suggests that there were fewer cases of cancer occurring in the vaccinated group and that the vaccine gave less protection to the older individuals.

There were 105 deaths from all causes in the 11 to 16th years after vaccination, of which 25 were cancer deaths. These cases were particularly noticed as being internal cancers, probably of long duration, and the ages at death were approximately 11 years greater than the deaths occurring during the first five years after vaccination. The age at death was five years greater in this latter group than the average age expected when computed for the group's age distribution at the District of Columbia vital statistics reported rate.

Summary

This paper reports over 40 years of bacterial research in cancer etiology, many years with thousands of animal experiments using cultures originally obtained from cancer tissue, and 17 years use. The vaccine prepared from this culture has been definitely successful as a prevention, as there were no cases of cancer found in the series of over 16,000 individuals, which were probably not present before the vaccination. A series, as large as reported here, provides sufficient proof that a vaccine, when repeated at suitable intervals, *will* prevent cancer. ◄

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Treatment of early, non-symptomatic cancer, which is found during routine examination, is much more effective than the same treatment applied to cancers in the symptomatic stage.

The Case for Periodic Cancer Detection Examinations*

VICTOR A. GILBERTSEN, M.D.
Minneapolis, Minn.**

FOR a number of years those with interest in such matters have attempted to halt the ever-increasing toll of deaths from cancer. Included have been the obvious and commendable measures directed toward *prevention* of development of neoplastic disease. Although seemingly ideal, at least from the standpoint of simplicity, several factors have limited quite severely the usefulness of this approach, including, of course, the fact that etiologic factors have been clarified for only a few cancers, and for others a number of vested interests seem to limit effective efforts in this regard. To illustrate the situation, following Percivall Pott's clarification of chimney sweeps' scrotal cancer, 100 years transpired before control of the disease was achieved, and then only with the introduction of the bathtub and the passing of the wood-burning fireplace.

Larger and more adequate surgical excision procedures have, probably, accounted for substantial survival improvement in at least certain areas. Most of the commonly employed "radical" operative procedures, however, including radical neck, radical breast, the abdominoperineal operation for rectal cancer, and the "radical" stomach cancer operation—were introduced more than half a century ago. Indications are that the optimal size for most surgical procedures probably has been reached, or even exceeded; today a growing reactionary tendency is appearing towards less extensive procedures.

Perhaps most energetic of existing efforts for the control of cancer are those exemplified by the activities of the American Cancer Society. In addition to underwriting the costs of various research projects, the Society has more or less vigorously promoted programs of public and professional education. Until recently the main body of educational efforts seems to have been directed toward acquainting physicians as well as the laity with such basic concepts as the "danger signs" of the more common cancers and with urging awareness of the relative frequency of cancer as a cause of a number of commonly occurring symptoms.

Several years ago it became apparent to some of the workers in the field that many of the common cancers grow rather slowly; and that even though progression may appear quite rapid once growth has advanced to such an extent as to produce symptoms which *force* examination and eventual diagnosis, several years of localized existence with few or no symptoms often have already transpired. The suggestion was made that treatment of patients in this "early" or asymptomatic stage might well—in at least a few instances—be associated with substantial improvement in survival. For example, the Papanicolaou smear in the detection of "early", localized, asymptomatic cervical cancer and the improvement of prognosis associated therewith have now become generally accepted.

Methods of Study

In 1948, 19 years ago, the Cancer Detection Center study was begun at the University of Minnesota. Persons examined have been as nearly as possible free of signs or symptoms suggestive of cancer upon entrance into the program, have been 45 years of age or older, and have agreed to return yearly as long as feasible for recheck annual examinations. No treatment is performed at the Center and patients agree to return to the private physician of their choice following each annual examination for any treatment or further diagnostic measures which may be indicated. The 45-year-age limit was empirically chosen, as 90% or so of cancer deaths in this country occur in patients over the age of 40 or 45, and a large segment of such deaths in younger persons, unfortunately, occur from leukemia and malignant brain tumors for which no truly adequate treatment is available. Studies at the Center have allowed us to assess with some objectivity the potential for improvement in survival associated with detection prior to appearance of symptoms of such severity as to make the patient aware of the presence of a serious condition.

To refresh our memories as to the commonly occurring fatal cancers,

* Presented at the 118th annual convention of the Indiana State Medical Association, Indianapolis, Indiana, October 10, 1967.

This material is similar to that which was previously published in *Ca-A Cancer Journal for Clinicians.*

** From the Department of Surgery, University of Minnesota Medical Center, Minneapolis 55455.

Men Estimated Cancer Deaths 1966	
LUNG	25.9 %
COLON & RECTUM	12.6 %
PROSTATE	9.8 %
STOMACH	6.7 %
PANCREAS	6.0%
KIDNEY & BLADDER	5.9%
LYMPHOMAS	5.4%
LEUKEMIA	5.1%
MOUTH & PHARYNX	3.1%
LIVER & BILIARY	2.7%
BRAIN & C.N.S.	2.6%
SKIN	1.6%
ALL OTHERS	12.6%
TOTAL	164,000

TABLE 1

Tables 1 and 2 show estimated cancer deaths for 1966, based on data from the Cancer Society. The most frequent ones should be noted: for men, nearly half of the cancer deaths presently occur from tumors primary in the lung, large intestine, and prostate gland; for women, breast, bowel, and female genitalia account for more than 50% of deaths. Other sites, although less frequent might also be kept in mind, as detection for several of these cancers is fairly uncomplicated, and treatment, when the tumor is yet localized, is associated with greatly improved survival; these include, for example, skin, oral cavity, thyroid gland and testicle.

Table 3 summarizes our fairly extensive experience extending over the past 19 years which has permitted what appear to be some statistically significant observations. Nearly equal numbers of men and women have undergone nearly equal numbers of examinations; a total of 13,648 persons have had 69,212 annual examinations, for an average of 5+ per patient. Five hundred and sixty-seven subsequently-proven cancers have been found, for a rate on initial examinations for men of 14.5 cancers per thousand examinations (or one for each 69 men), and on recheck examinations 7.7 per thousand (or one for each 130 examinations) were found. For women, corresponding figures were: initial examinations—11.0 cancers per thousand (or one per 91 women), and re-examination, 6.5 per thousand (or one for each 141 examinations).

The Merit of Periodic Examinations

A couple of examples of what might be called "pitfalls" in conducting periodic cancer detection examinations and in evaluating their results should be mentioned. As has been suspected for some time, lung cancers are not often found in midwestern farm women, school teachers, or housewives. Table 4 shows the experience of this Center with 35,000 routine chest x-rays of women of 45+ years of age: only two subsequently-proven primary lung cancers were detected. At the commonly-existing charge of $10.00, a computer is not needed to show that a cost of $350,000 for the detection of two cancers is not an argument in favor of including this procedure in the annual examinations of this particular group.

Women Estimated Cancer Deaths 1966	
BREAST	19.5%
COLON & RECTUM	16.4%
CERVIX	7.3%
OVARY	6.5%
LUNG	5.4%
STOMACH	5.1%
PANCREAS	5.1%
LYMPHOMAS	5.0%
LEUKEMIA	4.3%
LIVER & BILIARY	3.5%
KIDNEY & BLADDER	3.5%
ENDOMETRIUM	2.8%
BRAIN & C.N.S.	2.3%
SKIN	1.3%
ALL OTHERS	10.7%
TOTAL	136,000

TABLE 2

Minnesota Cancer Detection Center
Primary Lung Cancers Detected
March 1948 - February 1967
7,201 Women

Examinations	Number of Examinations	Lung Cancers Detected	
		Number	Rate
Initial	7,201	0	—
Recheck	27,903	2	1/13951
Total	35,104	2	1/17552

TABLE 3

The other example concerns cancer of the stomach, which, by fortunate but unrelated circumstance, is rapidly decreasing in this country. Table 5, with data based on studies of patients with proven stomach cancers seen at the University Hospitals as well as data from "normal" Cancer Detection Center patients, shows that while gastric analysis as a screening measure for stomach cancer would have picked-up most patients with this disease, most of the survivors—especially those in the younger (60 years and younger) age group with, of course, the better life expectancy—had free gastric acid on analysis, and, furthermore, the percentage of achlorhydrics and hypochlorhydrics in the younger age group survivors was essentially identical to that for the Cancer Detection

Minnesota Cancer Detection Center

1948 - 1967

	Number of Patients	Number of Examinations	Cancers Detected			
			Number	Rate of Detection		
				Initial Examinations	Recheck Examinations	Per Patient
Men	6,447	34,108	307	1/69	1/130	1/21
Women	7,201	35,104	260	1/91	1/154	1/28
Total	13,648	69,212	567	1/79	1/141	1/24

TABLE 4

Gastric Acidity on Histamine Analysis Stomach, Five-Year Survivors, and Normals (University of Minnesota Medical Center)					
	All stomach cancer patients with gastric analysis, 1950-1958				
	% overall group		% 60 years and younger (median age = 55 years)		% cancer detection center normals 45-74 years (median age = 55 years)
	All	5-year survivors	All	5-year survivors	
Achlorhydria	68	54	55	23	17
Hypochlorhydria	12	13	12	18	21
Normal acid	20	33	33	59	62
All (number)	409	46	113	22	2,470

TABLE 5

Center "normals" of similar ages without stomach cancer.

Thus, any routine of periodic examinations should include procedures or technics which have some reasonable prospect of success in finding curable cancers; cancers for which an effective treatment is available should be especially searched for; and particularly high risk groups, not only chimney sweeps, watch dial painters, and radioactive ore miners, but also persons in the general population who are older that 40 or 45 years, are likely to be most productive and to provide good evidence for the merit of periodic examinations.

The case for periodic cancer detection examinations rests on the potentiality of improvement in survival which can occur when fairly uncomplicated examinations detect cancer prior to the patient's awareness of its existence, and adequate therapy, if such exists, is fairly promptly available. In addition, even though the examinations at this Center have been oriented primarily toward cancer detection, a fairly substantial number of noncancerous conditions have been found, for many of which therapy is available, including diabetes, hypertension, heart disease, etc. Furthermore, a few truly precancerous conditions probably exist, therapy for which may be helpful in the prevention of invasive or recognizable neoplasia.

Minnesota Cancer Detection Center 5-Year Survival Breast Cancers 1948 - 1961			
	Number of Cases	5-Year Survival	
		Number	% Rate
+ Nodes	9	7	78
− Nodes	28	27	96
Total	37	34	92

TABLE 6

Cancer in Women

For women, the most frequent cause of cancer death is breast cancer, accounting for nearly 20% of cancer deaths in this sex. In the present study, initial examinations of women detected 1.5 subsequently proven breast cancer per thousand examinations, and subsequent annual examinations have found 1.3 per thousand. It may be noted, as what would appear to be an indication of the "earliness" of these lesions, none of these women was aware of the existence of a mass "suspicious" of cancer prior to examination.

Of the 37 women found to have breast cancers at the Center during the period for which a five-year follow-up is available (i.e., 1948 through 1961), 28 (or more than 75%) had *no* evidence of lymph node involvement at the time of subsequent surgery (Table 6) (cf., the usual incidence of involved nodes of 50% or higher). Twenty-seven of these 28 without evidence of nodal involvement were five year survivors. The overall five year survival rate for the 37 women was 92% which compares favorably with the 50% rate usually reported, and when corrected for age is nearly 100% of the anticipated survival for women of these same ages *without* breast cancer.

The case for Papanicolaou smears, of course, has been well established. The rate of detection for cervical cancers on initial or first examinations of these asymptomatic women was a modest, but respectful, 2.1 per thousand examinations. The rate for recheck examinations, however, was only 2.5 per 10,000 Papanicolaou smears, which serves to emphasize the relative importance of urging every woman to have at least one or two Papanicolaou smear examinations during her lifetime as compared with the not nearly so productive campaign which has resulted in a relatively few women in the general population having repeated smears at fairly frequent intervals. All of the women with cervical cancers detected at the Center appear to have been cured of the disease.

Cancer in Men

For men, one of the most common causes of cancer deaths has become cancer of the prostate gland. This area has received relatively little

Minnesota Cancer Detection Center 5-Year Survival Cancer of the Prostate Gland 1948 - 1961				
	NUMBER PATIENTS	5-YEAR SURVIVAL		RELATIVE 5-YEAR SURVIVAL
		NUMBER	PER CENT	
NEW PATIENTS	18	13	72.2%	88.8%
RECHECK PATIENTS	43	34	79.1%	97.7%
ALL	61	49	77.0%	95.0%

TABLE 7

Minnesota Cancer Detection Center

10-Year Survival
Cancer of the Prostate Gland
1948 - 1956

	NUMBER PATIENTS	10-YEAR SURVIVAL		RELATIVE 10-YEAR SURVIVAL
		NUMBER	PER CENT	
NEW PATIENTS	13	3	23.1%	38.6%
RECHECK PATIENTS	24	14	58.3%	99.0%
ALL	37	17	45.9%	77.5%

TABLE 8

attention for reasons not entirely clear, but probably include: a seemingly widespread failure to recognize its increasing importance as a cause of death (it now accounts for about 10% of cancer deaths in men); a general unawareness appears to exist of the usually-dire prognosis (the large N.C.I. End Results Evaluation Study showed an overall five year survival of only 27%, which, when corrected for age, still was only 40%); and a surprisingly prevalent, but erroneous, feeling, even among specialists, that procedures other than total prostatectomy have any role to play in the *curative* treatment of potentially curable prostate cancer.

Prostate cancer, microscopically confirmed—and not merely as an incidental autopsy finding of occult cancer—was the most frequent cancer in our group of examinees. Five year survival was substantial, especially when corrected for age (average age was 65 years) and especially when those with cancers found on *initial* examinations were tabulated separately from those with cancers found on re-examinations (Table 7). Comparable data for the portion of the group for which 10 year survival is available is shown in Table 8. Our results in graphic form compared with those of the large National Cancer Institute series collected under the direction of Dr. Sydney Cutler are shown in Figure 1. Note that while the age adjusted (or relative) survival for the NCI series followed a line of continuing deviation from normally anticipated survival for men of these ages *without* prostate cancer, the survival rate for the Cancer Detection Center patients with prostate cancers detected on second or later annual examinations was nearly the anticipated survival for normal men at five years and continued to be so at 10 years. In addition, it should be mentioned that of 19 patients in our group who had a total prostatectomy, which, of course, is the only curative operation for the disease, 18 of the 19 were five year survivors, and the only patient who was not, died 4+ years after operation of a coronary occlusion.

Intestinal Cancer

The cancer responsible for more deaths than any other during the past 25 years or more in the United States is bowel or large intestinal cancer. By fortunate circumstance, 2/3 of these cancers are primary in the most distal 25 cm of bowel, the area accessible to direct proctosigmoidoscopic visualization. First or initial examinations of Cancer Detection Center patients found a number of cancers of this area of intestine, some of which were "early", and survival was substantially better than usually observed. Incidentally, the detection rate of these cancers for proctosigmoidoscopy for initial examinations for men was greater than that for the Papanicolaou smear

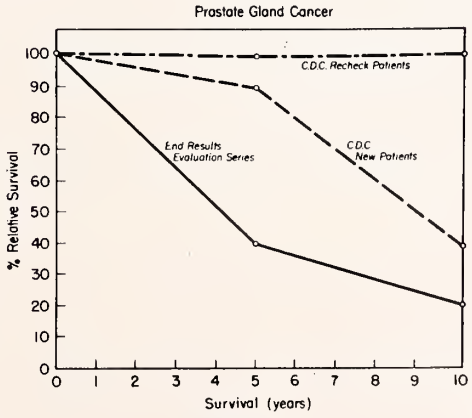

FIGURE 1

Minnesota Cancer Detection Center
Adenocarcinomas of the Rectum
Detected On
Recheck Proctosigmoidoscopies
1948 - 1966

Confined to Mucosa	4
Involved Submucosa	4
Involved Muscularis	1

All 8 operative survivors remain free of recurrence, 5 or more years later.

TABLE 9

for cervical cancer for initial examinations of women.

The 55,000 recheck examinations of CDC patients detected nine adenocarcinomas of the "rectum", or, more properly, the last 25 cm of bowel (Table 9). All nine were found on microscopic examination to be confined to the wall of the bowel, and none had evidence of spread to lymph nodes or even of penetration through the full thickness of the wall of the intestine. Four of these cancers involved only the mucosa and another four had microscopic evidence of invasion of the submucosa. Only one involved the muscularis of the bowel; this patient had a lesion known to be present at least 2 1/2 years which had been thought by both the private physician and the patient to represent a hemorrhoidal tag. One of these nine patients, unfortunately, was an operative death in another hospital following a segmental resection and anastomosis for a low sigmoidal lesion. Of the other eight, however, seven underwent limited local excisions through an anoscope or proctoscope, without requiring a colostomy or a bowel anastomosis. All eight have now survived five years or longer, and none has evidence of recurrence of the cancer.

Somewhat surprising was our realization that more than nine cancers of this bowel area might have been anticipated to have developed in 55,000 patient-years experience with similar persons of this age group. Careful follow-up studies, more than

99% complete, did not indicate any cancer of this area which was "missed" or otherwise overlooked at the Center (Table 10). Statistically, at least 32 cancers of this bowel area might have been expected to develop in a group of patients with this age and sex distribution. It appears a distinct possibility that the development of many or most of the anticipated invasive recognizable cancers of this bowel area was obviated by the nearly-routine removal of benign appearing polyps or adenomas following their identification on proctosigmoidoscopy. The argument of whether some of the small adenomatous-appearing lesions might be tiny cancers from the start or merely "precancerous" appears to be only an academic one for the smaller lesions—those under 5 mm—as the same local process of removal appeared effective in either event.

In summary, for many (although not all) of the commonly occurring cancers in both men and women, detection by periodic examinations and while the lesions are yet asymptomatic of their presence allowed cure or prolonged survival for the great majority of those who might otherwise have been anticipated to die of their disease if diagnosis were delayed until the appearance of symptoms forced examination. In addition, it appears that the development of overt, recognizable cancers likely can be obviated in some instances by the procedures associated with periodic examinations. For example, little reasonable doubt appears to remain that routine proctosigmoidoscopy, once the patient has gotten on the schedule of examinations every year or two and if benign appearing adenomas are routinely removed, was associated with an absence of deaths from invasive cancers of the most distal 25 cm of bowel—the area which presently is the primary site of 10% or more of *all* fatal cancers; and the few cancers which did appear were rarely invasive and could be successfully treated with relatively minor surgical procedures.

Finally, it should be recalled that the value of periodic cancer detection examinations can easily be diluted or even lost sight of by the inclusion of technics of examination which are minimally productive, and that early detection must be followed by early, adequate therapy if best results are to be obtained. ◀

Minnesota Cancer Detection Center Adenocarcinomas of the Rectum* Recheck Proctosigmoidoscopies on 45-85 Year Old Patients	
ANTICIPATED NUMBER	32
ACTUAL NUMBER	9
* DISTAL 25 CM OF BOWEL	

TABLE 10

★

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CLINICOPATHOLOGIC CONFERENCE

Case No. A-12, 870

Discussant: Dr. Edward Steinmetz

FIRST ADMISSION: A 33-year-old Negro female in the sixth month of her sixth pregnancy was admitted to the hospital because of dyspnea of several weeks duration.

At the ages of seven and 11 years, the patient had experienced episodes of fever and polyarthritis with a heart murmur first being heard. She had been quite ill with fever, arthritis and weakness with her first pregnancy but this resolved without sequelae, and the subsequent delivery, as the next four pregnancies, was uneventful. During the last few months before her present pregnancy, she had noted mild orthopnea and dependent edema, and these symptoms were accentuated by her pregnancy. At the conclusion of the first trimester she had experienced painless hemoptysis. At the fifth month she experienced right lateral pleuritic chest pain. One week prior to her admission she developed a severe, sharp and burning, substernal chest pain which was accentuated by deep breathing, the supine position and swallowing. Her edema, orthopnea, paroxysmal nocturnal dyspnea and nocturia progressed. At the local hospital, a pericardial friction rub, systolic murmur and anemia were documented, and the patient was referred to Indiana University Medical Center. The patient was receiving Bicillin monthly and had periodically been on oral contraceptive drugs. Otherwise, the past history was unremarkable.

The patient was slightly dyspneic at rest. Pulse was 100, blood pressure was 110/60, respiratory rate was 16 and temperature was 99° F. orally. Examination of head, eyes, ears, nose and throat was normal. The chest revealed a few crepitant rales in the right base. The cardiac apex was displaced to the left of the midclavicular line, but did not demonstrate abnormal activity. A three-component pericardial friction rub was heard diffusely. A quiet, holosystolic, apical blowing murmur radiated to the axilla. A grade 2/6 ejection, basal, systolic murmur radiated toward the neck. No diastolic murmurs nor gallops were heard. The neck veins were not distended, and all peripheral pulses were easily palpated. Neither the liver nor spleen were palpated. The uterus reached the umbilicus and was not tender. Fetal heart tones were 140/minute. The extremities demonstrated no edema. There was no lymphadenopathy. Neurologic examination was normal.

The urine was clear with a 1.010 specific gravity, pH of 5, and 10 to 20 white blood cells per high power field. Hemoglobin was 9.0 gms %; hematocrit was 27. White blood cell count was 7700. Fasting blood sugar was 88 mgms %. BUN was 8 mgm %. Serum electrolytes were normal. Electrocardiogram demonstrated an axis of 60 degrees, normal sinus rhythm, normal QRS, and ST segment elevation in II, III, AVF, V_2-V_5, and T-wave inversion in V_1 and V_2. Echocardiogram suggested a two centimeter pericardial effusion. Chest film demonstrated a clear chest and an enlarged cardiac silhouette consistent with pericardial effusion. Several blood and urine cultures were sterile. ASO was 166 Todd units. CRP was 8+ (8 mm). Serum iron was 17 and iron-binding capacity 288 micrograms%. Hemoglobin electrophoresis demonstrated a Type A hemoglobin. Serum protein electrophoresis demonstrated a diminished albumen (25%; normal 60-70%) and elevated gamma globulin (39%; normal 10-15%). LE cell preparations and a rheumatoid slide test were negative.

The temperature rose on the second hospital day to 102°. With aspirin, it reached 100°F. each afternoon. The temperature returned to normal after two weeks' hospitalization. The patient received four units of whole blood transfusion and iron supplements. She received only two doses of 250 mgm V-Cillin K. The chest pain disappeared, the heart size returned to normal, and she was discharged asymptomatic on the 21st hospital day.

SECOND ADMISSION — one month later: She had been followed as an outpatient when the hemoglobin was demonstrated to rise to 11.2 gms % and subsequently drop over a two-week period to 9.3 gms %. She was readmitted on her second return visit because of fever of 101-102° on several occasions, and increasing weakness and dyspnea.

Examination was unchanged except for the absence of the pericardial friction rub. The holosystolic, apical murmur was not clearly audible. The patient went into labor on her second hospital day and delivered a healthy four pound, 13 ounce baby.

A tubal ligation was performed. The postpartum period was uneventful. The patient was afebrile and asymptomatic. Several blood

cultures were sterile. Gantrisin was administered because of pyuria. Electrocardiogram and chest film were normal except for slight, persistent cardiomegaly. The patient was discharged on the eleventh hospital day.

THIRD ADMISSION—two and one-half months later: She did well for one and one-half months and then developed a daily fever of 102-103°F., accompanied by anorexia and malaise. When these complaints persisted for a month, she was admitted to another hospital and was noted there to have fever of 103°F., a systolic murmur, clear lungs, no edema, but hepatosplenomegaly. Laboratory studies there included microscopic hematuria and red blood cell casts; hemoglobin was 4.5 gm % and hematocrit 17%, white blood cell count 9200. *Staphylococcus epidermidis* grew in one of eight blood cultures. On the third hospital day, penicillin 30,000,000 units, was administered intravenously and continued daily. Whole blood was administered. She suddenly developed pain in the left leg and no pulses were palpable in the left foot. An arteriogram demonstrated occlusion of the left, superficial femoral artery. Emergency embolectomy was performed and the pulses returned to the leg. Postoperatively the patient became more dyspneic and developed prominent basilar rales. Digitalis and a mercurial diuretic were administered, but no diuresis was obtained and edema and ascites appeared. BUN rose from 20 to 55 mgm % and creatinine rose to 5.5 mgm %. On the fifth hospital day the patient developed a painful, pulseless right foot, and was transferred to the I.U. Medical Center.

The patient appeared critically ill, lethargic and poorly oriented. Temperature was 98.6°F., pulse 80, blood pressure 118/68, respiratory rate 24. The neck veins were distended. The liver was enlarged to 5 cm beneath the right costal margin and tender; the splenic tip was palpable. No ascites was described and no edema was present. Rales were audible in both lung bases. The precordium presented both left parasternal and apical lifts. A third and fourth heart sound were described. The apex presented a Grade III/VI holosystolic, blowing murmur and a quiet diastolic rumble. A grade II/VI ejection systolic murmur and a grade I/VI diastolic, decrescendo, blowing murmur were evident at the cardiac base. The peripheral pulses were hyperdynamic except in the right foot where they were absent. The right foot was warm. An operation scar was evident over the left femoral area.

The urine was dark yellow and hematest positive; albumen was +1. Many red blood cells, white blood cells and red blood cell casts were present in the sediment. Hemoglobin was 9.9 gm %, hematocrit 29%. White blood cell count was 20,000 with 15% band forms and 76% mature neutrophils. BUN was 68 mgm %, blood glucose was 122 mgm %. Sodium was 117, chloride 94, potassium 4.8, bicarbonate 9.6 mEq/l. Chest film demonstrated moderate, nonspecific cardiomegaly and mild pulmonary venous engorgement. Electrocardiogram demonstrated no significant change except nonspecific T-wave alterations.

Several blood cultures were drawn and were consistently sterile. Heparin was given and high doses of penicillin and streptomycin administered. The patient remained afebrile. On the second hospital day she demonstrated seizure activity of a generalized nature except that the head and eyes faced to the right. Heparin was discontinued. Subsequently a right hemianopsia was documented. Digitalis was continued, and Dilantin and Amytal added.

Early on the morning of the third hospital day, the patient suffered a cardiac arrest and developed tracheobronchial aspiration. She was resuscitated and given corticosteroids, isoproterenol (Isuprel) and sodium bicarbonate, but died a few hours later.

DR. HUNTER A. SOPER: It seems to me that today's problem for the conference is simply a discussion that concerns a 33-year-old female cardiac who did quite well until just prior to her sixth pregnancy. During the fifth month of her sixth pregnancy, she was hospitalized for fever and chest pain from which she recovered rather well. She was subsequently rehospitalized because of recurrent fever and anemia, but was able to deliver a healthy premature infant without complications. As a matter of fact, she had a tubal ligation and got along well. Two and one-half months after delivery, she was rehospitalized for fever, followed by a number of complications from which she finally succumbed.

We have asked Dr. Steinmetz, who has graciously consented to unravel this problem, so I leave it to Dr. Steinmetz.

DR. EDWARD STEINMETZ: As the protocol says, here is a lady who had some kind of arthritis on two occasions as a child. Apparently with her first pregnancy she had an exacerbation of this arthritis, and a heart murmur—at least a heart murmur with the pregnancy. She subsequently had several pregnancies and apparently did well with these, until prior to this sixth pregnancy, and, as the protocol tells us, she may have been under some cardiac burden even before this; at least, they tell us she was orthopneic and had exertional dyspnea. In the first trimester of pregnancy, she coughed up some blood. How much, they don't tell us, and then in the fifth month she had right chest pain, which at the time of her subsequent admission was still evident, apparently by some rales in the right base. Physical findings at the time of this admission would go along with the history, namely, a woman with probably some

form of previous heart disease—a valvular heart disease and intrauterine pregnancy. This was occurring at the time when the cardiac load was getting into the maximal stage. There was edema, a pericardial friction rub and a systolic murmur. The interesting thing is that there was no specific cardiac therapy done at this time, except bed rest and aspirin. This raises the question of whether this lady had an exacerbation of acute rheumatic fever.

The sonar examination raises the question that this lady had a fairly significant pericardial effusion. The question in my mind is just how significant this pericardial effusion was. Obviously, the feeling must have been at this time that the patient's effusion was certainly not enough to cause tamponade, which would be one indication for a pericardiocentesis, and that the diagnosis was at least evident at that time, so that the other indication for pericardiocentesis, namely, establishment of a diagnosis, was not entertained. This raises the question that they considered this as an exacerbation of acute rheumatic fever.

Now, what about the laboratory findings that would support this? She did have fever. The white count was not markedly elevated, nor was it shifted to the left. The ASO titer was 166, and the CRP was, I think, 8+. Now, it raises the question, is this sufficient evidence to diagnose acute rheumatic fever? First of all, if you consider acute rheumatic fever at the age of 33, you are considering an unusual occurrence. If you had to take the age ranges and sort of group them, I think, as everybody knows, age five to 15 would be the largest incidence; I think the next largest would be the ages one to five, the next largest would be 15 to 25, and above 25 the incidence is very low. The other laboratory studies that were done at that time create some other problems. First of all, there were several negative LE preparations and a rheumatoid slide test was negative. I might ask Dr. Noble, were those just the slide tests for LE preparations?

DR. NOBLE: Yes, they were.

DR. STEINMETZ: Lupus is one consideration that you'd like to know about, and I would think that if available, not only would I ask for LE cell preparations but possibly fluorescent antibody studies and antinuclear antibodies if these are available, because in about 85% or 80% of lupus patients, they may have a negative LE cell preparation. If you can add to it the antinuclear factor studies, you may increase the accuracy of this test to 95%.

What about any other tests? We have the serum electrophoretic protein pattern, and it's described only as being diminished in the albumin and elevated in the globulin. Of course, I would like to know a little more about this. It would help to know the alpha-1 and alpha-2 fractions, and the general configuration of the gamma globulin. Suffice it to say, this kind of change is not specific in itself other than in chronic infection or debilitating states. The gamma globulin would contain the myeloma protein, which would be unusual in this kind of case, or the changes in the alpha-1 or alpha-2.

Let me make one other comment about her anemia recorded on the first admission. As you note on the protocol, the serum iron was 17, which was considerably depressed, and the iron-binding capacity was 288 mcg, which is in the low normal range. As the changes of pregnancy occur, the dilutional changes will peak out about the sixth or seventh month, and while the total blood volume increases, the red cell mass increases less proportionately and an anemia occurs. Again, this is usually in the range of 10 to 11. Certainly, at the second admission we have the impression that she was treated and responded. She did receive transfusions of four units of whole blood. I would suspect that what they were trying to do at this time was to lessen the work-load on the heart, if anemia does represent a work-load in the face of increasing volume changes as caused by pregnancy.

The bone marrow, as reported on the first admission, was essentially normal. There was no comment about iron staining or hemosiderin pigments in the bone marrow, and apparently a LE prep on this specimen was also negative. I should comment about the possibility of sickle cell disease. I would ask the question, does one electrophoretic hemoglobin pattern rule out sickle cell disease? Having been caught in this once before, I don't think it does. As you might know, the rate of migration of the S-hemoglobin is almost as fast as the A; and I think I would look at this myself or I would ask for a repeat or look at the control that they compared it to, because if there is some change in the technic, you may in fact have what looks like, or what could be interpreted as an A-type when it fact it may be S. Along the same line, I would like to know then, what did the peripheral smear show? Were there any peripheral changes compatible with sickle cell disease? As I recall, there were none. She was seen by the hematologist and apparently there was no mention of this.

She went home and, according to the notes, did well except her hemoglobin dropped again, and again we have no information that she was bleeding any place. She wasn't losing it either in the GI tract or in the urine; her nutrition was adequate and yet her hemoglobin dropped again and she had fever. I think here again physical findings are not too remarkable in the sense that a pericardial rub, which was present the first time, was no longer present. The apical murmur was there, and the patient apparently was not in any kind of cardiovascular stress; at

least no therapy was given and she tolerated her delivery well. As I recall also, the reticulocyte counts on the first admission were 3.5 and 5.8. So she was able to respond. As you know, she had a tubal ligation. This was a mid-line incision, as I understand; it was fairly simple to do and apparently was uncomplicated as far as any fever at that time.

Again the doctors were apparently looking for a bacteremia. They got several cultures and again these were negative. The persistent cardiomegaly keeps bobbing up here and it raises many questions about the configuration of the cardiac silhouette. Certainly it would seem not advisable to get cardiac fluoroscopy at the time of pregnancy, but here was a situation where now that she had delivered, she was doing well. With fever this may not be apropos, but I think we have seen inflammatory pericarditis constrict down fairly quickly in a short period of time, and you would be concerned about the movement of the chambers and whether there was any specific chamber enlargement.

We come to the third admission, and as the protocol tells us, again the fever came back. Now she had anorexia and malaise; she had these apparently for some time before she was admitted to the other hospital, and again, an interesting thing here, in spite of all this, there was no edema at the time of hospitalization at the other hospital. They did find hepatosplenomegaly and before they could get too far in their work-up, she progressed into a rapidly downhill course. The interesting thing to me was that while they say there was no edema, they do say that the neck veins were distended. Again, this raises the question of what was the pericardium doing, or how was it reacting over this period?

Now the splenic tip was palpable. There was no ascites or edema. There were rales in both lung bases, and I think now we are seeing progressive myocardial failure. A left parasternal lift was described; and also for the first time, and I think a fairly significant finding, was the presence of a left sternal border decrescendo murmur. This raises the question again of what is the heart size? Is it really dilating and unseating the aortic valve cusps to give this, or is in fact this a brand new complication of acute aortic insufficiency? At this time also, the laboratory studies again were sort of noncommittal in that there was one blood culture that was positive with *Staph. epidermidis,* one that we are usually prone to say is a contaminant.

Now, for the first time, white count is high—20,000. We had seen it all along in a low range or in the normal range. She was markedly azotemic. She had an aberration of her serum electrolytes, particularly a sodium of 117, which is quite low. She had a bicarbonate of 9.6. The blood cultures were still negative. She had continued, in spite of any therapy, to go downhill with these embolizations and die. What we have to concern ourselves with is some kind of disease which would be characterized by underlying heart disease, recurrent fever and anemia, and embolization and/or thrombosis formation.

I will go through the things that I thought about and discard them as I discarded them and let people resurrect them as they see fit.

I don't think we have enough information to really implicate a congenital heart lesion that might become involved in this manner. I think the hypersensitivity states with a vasculitis are interesting, particularly since she coughed up some blood and she had a renal problem involved most of the time. It seems appropriate to mention Goodpasture's syndrome. There was recently a CPC in *The New England Journal of Medicine* in which the patient had renal failure, mild pulmonary hemorrhage, with anemia and embolic phenomena. I have nothing to support a diagnosis of Goodpasture's syndrome as I know it. I can't really rule out that there is not a vasculitis proceeding in the patient's kidneys. Could this all be just pregnancy state? Certainly you always worry about chest pain in the pregnant woman being a problem of pulmonary emboli, and mild anemia and then subsequently some infection and septicemia. I doubt if this is. I am not familiar with emboli in this situation except as a paradoxical embolus, and certainly this would not be anything to consider. It might be worthwhile to look at some of the laboratory studies that we have available and ask some questions. I think the first ones will be the x-rays, if Dr. Miller would like to show them, because I'd like to know some things about the x-rays. I am curious about this chest pain that she had just before she came in and the rales that were still present. Was there something in the pulmonary parenchyma on the initial film? What about the size of the heart on x-ray?

DR. ROSCOE MILLER: There is gross cardiomegaly or interpretation of pleural effusion. I believe it is most consistent with pleural effusion. The lung fields themselves are not completely clear; there is some basilar atelectasis in both lower lobes. On the other hand, the upper lobe lung fields are clear (Figure 1). The heart decreases in size on the next film. There is perhaps some pulmonary venous congestion (Figure 2). The next film is immediately before the terminal event where one sees aspiration pneumonitis in the right upper lobe, and again there is some cardiomegaly (Figure 3). An abdominal film showed the pregnancy with a breech presentation, and that is completely normal except the medication she is receiving is not having much effect because you see the pills in the colon. Now I'll be quite glad to answer any questions that I can and I would like to make

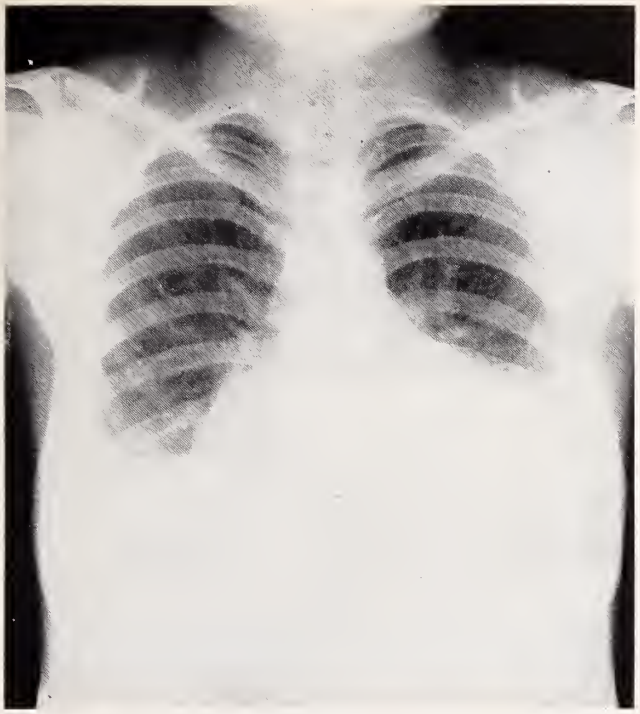


FIGURE 1
THE upper lobe lung fields are clear, but there is some basilar atelectasis in both lower lobes.

FIGURE 2
THE heart decreases in size on this film and there is perhaps some pulmonary venous congestion.

one small point: Dr. Steinmetz has made an excellent example in that he comes with questions to the radiologist. If you can bring to us the question you want answered, we can do a much better job for you. That's not saying we can always answer them, but we can generally look *for* that and sometimes do special studies to elucidate a point that you have. On the first film, you asked if she had some pulmonary problems and I said yes, in both lower bases.

A PHYSICIAN: How about the second one? You say that is perfectly normal? You see nothing, not only as far as size, but also configuration?

DR. MILLER: No, in general I see nothing particularly unusual regarding the configuration. There is some of what appears to be enlargement of the left ventricle, but this is an excellent point in that we are limited with the one film. We were not asked by the attending physician at that time to evaluate the chamber sizes; therefore this study wasn't

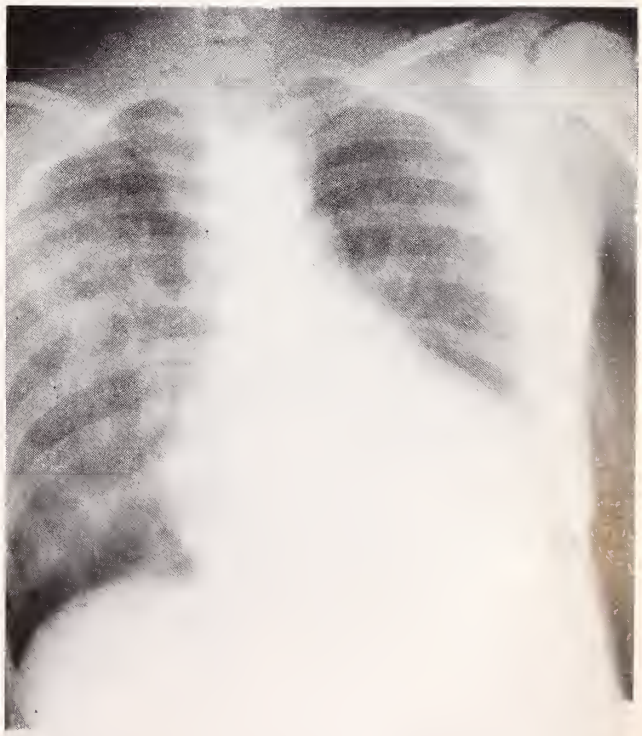


FIGURE 3
THIS x-ray shows aspiration pneumonitis in the right upper lobe plus some cardiomegaly.

done. I must admit without any hesitation that I see nothing that worried me particularly in this case. I see no pleural effusion. There is some cardiomegaly perhaps and probably some left ventricular enlargement, but I see no other specific diagnosis that I can make on this film. I suspect that there is one, but we just do not see it.

DR. STEINMETZ: The pulmonary outflow tract obviously doesn't bother you there? I've got to make a decision here and I'm getting nervous about it.

DR. MILLER: It isn't bothersome to me. Knowing a little more about the case, I am worried about the aorta, but I cannot read that into this; I cannot say that she does not have mitral stenosis, or aortic regurgitation. I am looking for that on the film, but I can't find it.

DR. STEINMETZ: I am nervous about that small aorta and what looks like some venous distension. Do we see anything from the electrocardiograph that would suggest chronic, at least chamber, changes, or is there a nonspecific change? My feelings, in looking at these electrocardiograms, were the following: I think I am impressed that there is sinus rhythm on each of these. Apparently she was in sinus rhythm throughout her illness. You see an axis that looks about a +60, and you see in the protocol, in II, III, and AVF and V_5 and V_6, some ST elevation (Figure 4). This would go along with a possible pericarditis. It may be nonspecific, as we see sometimes in these people. The P-wave again is a little striking to me. I really wanted to see some kind of P-mitrale. I think in V1 you are impressed by the fact that there is considerable degree of negativity of the P-wave, and yet in lead II and III I don't see a significant notching. I see nothing to support an intraventricular conduction defect at this time. This first EKG

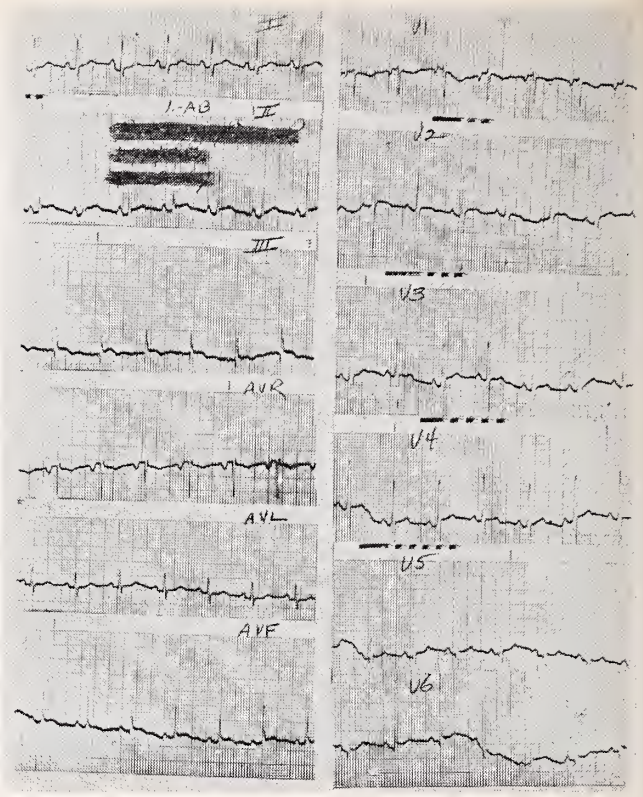


FIGURE 4
THERE is some ST elevation in II, III and AVF and V5 and 6.

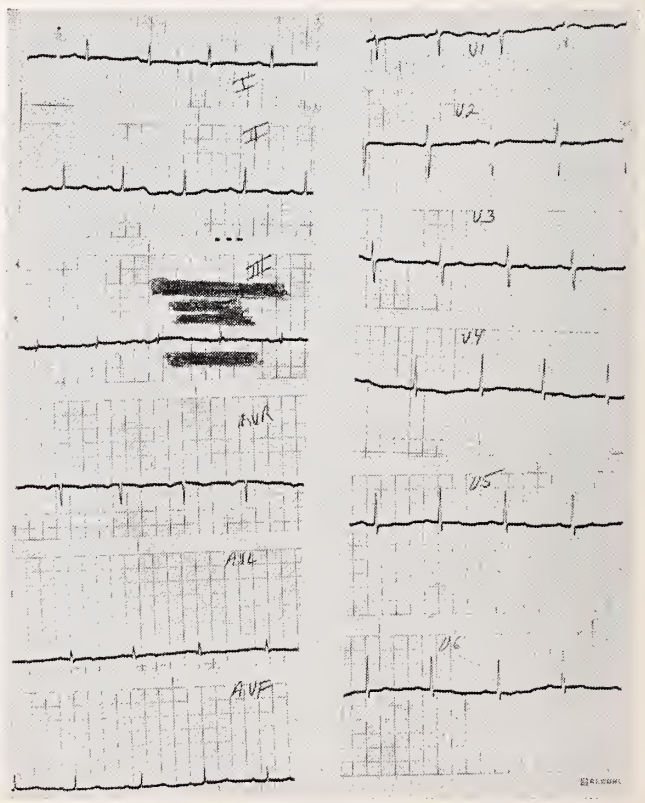


FIGURE 5
SINUS rhythm is again evident in this second electrocardiogram.

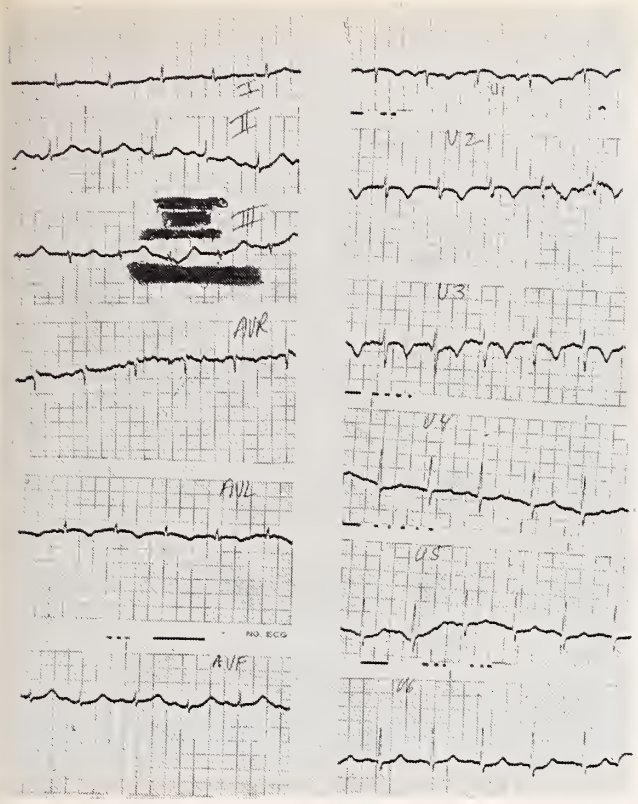


FIGURE 6
THE third EKG again shows sinus rhythm.

was apparently on her first admission; the last two that we'll show were on her last admission.

In the second EKG there is again sinus rhythm (Figure 5). It appears that at least in the standard leads there is less voltage display, but on the precordial leads you see adequate voltage measurements. Again, the PR interval now is a little longer. The P-wave in V_1 is still negative, and there seems to be normal progress, and as they described it, only nonspecific changes.

The third EKG again shows sinus rhythm (Figure 6). PR is a little long. The QT interval seems quite a bit long; of course, as you recall, she had been having some cerebral problems, and this possibly could be interpreted on that account. You do see a small S1 in lead I and I think there is a very small Q in lead III and in V_1 there is a little coving across the precordium and it's inverted in V_2 and V_3. Possibly this is cerebral in origin, or does it really represent as her terminal event something on the right side in a massive pulmonary phenomenon? I won't say right now. Are there any questions?

A PHYSICIAN: How do cerebral complications cause prolongation of the QT interval?

DR. STEINMETZ: I am sure, if you see electrocardiograms in patients, I think it is most often subarachnoid hemorrhage, and you will see the very deep inversion of the T-wave and in association with this prolongation of the QT. I don't think there is any explanation. It has been suggested that there is an excessive release of catecholamine, or excessive hyperepinephrinemia, causing a diffuse sequestration or ischemia throughout the myocardium, but I have no explanation for it. I don't know if anybody else does.

One disease that I think is really interesting is sickle cell disease. Could this lady be in fact sickle cell disease all the way? As you know, patients with sickle cell disease have anemia, they have high output states with this anemia, and in fact they can get an enlarged heart, valvular murmur, and similarly they may have cerebrovascular accidents, and they may have thrombosis. As you would expect, they should have with this some other symptoms that would really get them in trouble long before this lady did at the age of 33. Hemarthrosis is fairly frequent in this kind of situation and I will have to accept the fact that the peripheral smear by the hematologist did not support this, but I think it's always a very difficult diagnosis in cardiac situations unless you can really establish the electrophoretic hemoglobin pattern. What about a cardiomyopathy of some sort with embolization of both the brain and the kidneys—the spleen? As my experience has been, usually with this severe a disease, I have been impressed that they have considerably more congestive failure than this lady apparently had. They have quite a few more arrhythmias. I think we frequently see more conduction defects in these people and I didn't recognize any in this lady. So I would tend to leave out this as a possibility, particularly in view of the fact that the people at the bedside really didn't show us gallop rhythms and so on until late in the disease.

There are a few odd-ball things: Left atrial myxoma with fever and embolization has been reported. I will just mention that I wouldn't know how to establish this diagnosis, short of a catheterization study and I think this lady was too sick throughout this study to consider this. What about nonbacterial thrombotic endocarditis? As you know, this usually occurs in a situation of chronic debilitated states or infections, such things as carcinomatosis, cirrhosis of the liver, chronic pulmonary disease, osteomyelitis. We have nothing to support it in this lady. Really, we get down to two things that I consider.

What about lupus in this lady? She had, as Dr. Miller has shown us, some pleural effusions. She had a pericarditis. She had the anemia, recurrent emboli, and in these situations the embolization is one in which it's nonbacterial, and so she could very well have had this. I think though, that the key to this,

at least as I look at it, is that I wasn't impressed with the last film that the heart was markedly enlarged to cause aortic insufficiency and I am not familiar with any nonbacterial thrombotic endocarditis as causing a perforation of the valve. What I am really thinking of is that this lady then perforated an aortic valve to bring on the aortic insufficiency and severe downhill course with failure and termination with azotemia and cerebral emboli.

What about subacute bacterial endocarditis in this lady? There are quite a few things for it. In fact, this is what I have thought of all along. I would make a point that while everybody is familiar with the classic patient with SBE as having the changing heart murmurs, the embolic phenomena, petechiae, splinter hemorrhages, clubbing, splenomegaly, and the like, in about a third of the cases these are not present. The other thing that raises a question is what about the negative blood cultures? What causes are there for a negative blood culture? This slide was taken from Tumulty's article in *Geriatrics*, but it points up the question that even in the best of hands, the blood cultures may be negative in 10% to 20% of the cases. In fact, they may be negative because of prior therapy; in this case we don't seem to have this information. Right-sided heart lesions are a possible cause for negative cultures. So-called very chronic subacute bacterial endocarditis is another group. Uremic patients seem to have a much higher incidence of negative cultures. Poor bacteriologic technic, I think, is not a possibility in today's case. Protoplast forms, or L-forms, are to be considered because these will not be identified by usual culture methods. The other possibility is delicate or unusual growth requirements. I think we are again talking about an unusual cause.

I would say, then, that I think that this lady has valvular heart disease, that in fact she had subacute bacterial endocarditis with embolization and I would ask myself some questions at least. What were some predisposing factors that would give her this? As you all know, dental extractions, teeth-cleaning manipulations and such are standard to consider. In this lady, though, while we don't have this information, did this begin with her first admission? Really, I am thinking of *Staph. endocarditis*, and it raises the question of how often is this a contaminant in a blood culture and how often is it really a fact? There is no real answer other than a high degree of suspicion to start treatment.

There is a recent article relative to the increasing incidence of *Staphylococcal endocarditis*. I found nine cases of *Staph. epidermidis* in which the mode of onset of this was not easily determined by history. There were three that had pneumonia as an initial inciting event, and I'd go back to this lady and ask the question, what was this that she had initially? Could she have had a *Staph. pneumonitis* followed by a bacteremic pericarditis, which would be unusual, and then subsequently slow continuous downhill course with her embolization? Other possibilities: Did she have a gonococcal infection during or prior to the pregnancy that would incite a bacteremia? She had surgery during her second admission, which may have been an open opportunity. Other possibilities: Histoplasmosis could possibly cause this. Again, it would elicit the negative blood cultures though, I would think that the organism would have been seen in the bone marrow. So I tended to disregard that.

I'll stop here and ask if there are any particular questions.

A PHYSICIAN: Isn't it unusual to have pericardial effusion along with SBE?

DR. STEINMETZ: Supposedly in subacute bacterial endocarditis the occurrence of pericardial effusion is very rare; even pericardial rubs are very rare. That would make us favor acute rheumatic fever and rheumatic pericarditis. But there are case reports of septic pericarditis. Particularly the staphylococcus gets off the endocardial surfaces through the myocardium and into the pericardium. There was one other case report by Friedberg of a pulmonary endocardial vegetation which extended down between the root of the aorta and pulmonary vessels and into the pericardium to produce pericardial effusion. While pericardial effusion in endocarditis is quite rare, it still is a possibility.

A PHYSICIAN: Do you often see this type of pericardial effusion resolve without therapy?

DR. STEINMETZ: No, you usually don't. Most septic pericarditis is pretty severe. If I am implicating *Staph. epidermidis*, this is a less virulent organism; in fact, its sensitivity is one which is very sensitive to penicillin. Now, the question I raised initially is whether she was really constricting. I think you will recall the *Staph. pericarditis* we had at General Hospital who constricted in about eight weeks. Again, he was diagnosed and treated.

Discussion of Pathology

DR. SIGMUND L. WILENS: Before demonstrating the lesions in this case, I should like to add a pathologist's comment on the question of the rarity of pericarditis as a complication of subacute bacterial endocarditis. This was certainly a rare finding in classical, pre-antibiotic subacute bacterial endocarditis caused by non-hemolytic streptococci. It is almost as uncommon in post-antibiotic, bacterial endocarditis in which a subacute course can be associated with a variety of bacteria including staphylococci. When pericarditis does develop in a case of bacterial endocarditis during chemotherapy, one should always suspect that there is a mycotic aneurysm of

FIGURE 7
MYCOTIC aneurysm in supraventricular portion of the ascending aorta.

the sinus of Valsalva that has made sterilization of the blood stream difficult and has also extended through the wall of the sinus of Valsalva to infect the pericardium. This, in fact, is exactly what took place in the patient now under discussion.

The main lesion, namely the mycotic aneurysm, is shown in the first photograph of the heart (Figure 7) in which the left ventricle and aortic valve are also seen. The heart was dilated but weighed only 370 gm. The aortic valve in this view appears almost normal but just above it in the supravalvular portion of the aorta is a large bean-shaped stoma of a mycotic aneurysm filled with blood clot, thrombus and solid grayish-green bacterial vegetations. The mouth of the aneurysm measures 4 cm across and it is just about as deep. It lies within the intrapericardiac portion of the aorta and the entire wall of the aneurysm, as you will see in the microscopic sections, is inflamed. I am confident that this patient had the aneurysm at the time she developed a pericardial friction rub and that the pericardial sac was infected by extension through the wall of this lesion.

In a close-up view of the aortic valve, there is not much evidence of deformity due to rheumatic disease. The leaflets, in fact, are not fused together at the commissures. There is also no evidence of bacterial infection of the valve and no clear-cut evidence that it was ever infected. There is, however, a plaque-like mound of fibrous tissue on one cusp which may represent the residuum of a completely healed bacterial vegetation. One can only speculate that originally, previous to antibiotic therapy, there was a vegetation at this point which made contact with the upper margins of the sinus of Valsalva and infected the intima, thus initiating the mycotic aneurysm that resisted sterilization much more vigorously than the vegetation itself.

We have no other explanation for the development of the aneurysm. Sections of the aorta elsewhere fail to show any intrinsic degenerative process that might explain the development of an aneurysmal lesion due to weakening of the wall.

A photograph of the mitral valve (Figure 8) shows clear-cut evidence of rheumatic disease which is not much in evidence in the aortic valve. Even here, however, the lesion is not an advanced one. There is little calcification or rigidity of the deformed leaflets. This is quite in keeping with the usual rheumatic lesions seen in association with subacute bacterial endocarditis. It is not the tight, fish-mouth, stenotic lesions that usually become infected with bacteria. More often, it is moderately advanced lesions such as are present in this case that are involved. The chordae tendineae are short, thick and spindle-shaped, however, and there are endocardial pockets in the

FIGURE 8
RHEUMATIC endocarditis of mitral valve.

left ventricle which indicate clearly that this was an insufficient mitral valve through which regurgitation occurred.

The pericardial surfaces are roughened by fibrous adhesions which sealed the two layers together. The pericarditis obviously did respond to antibiotic therapy.

Sections of the wall of the aneurysm (Figures 9, 10) show it to be composed largely of dense fibrous tissue which must have taken considerable time to develop but there is also an active inflammatory process and collections of purulent exudate that extend almost through its entire thickness. This type of pyogenic reaction is more compatible with staphylococcal than with nonhemolytic streptococcal infection. At the orifice of the aneurysm there is a complete break in the elastica of the media, proof that rupture did occur. Sections of the base of the thickened mitral valve discloses numerous thick-walled vessels such as commonly develop during the course of rheumatic valvulitis and persist after the inflammation subsides.

A single small healing inflammatory focus was found in the interventricular musculature, probably embolic in origin (Figure 11). This supports the speculation that there may have been vegetations on the aortic valve at one time since it is unlikely that emboli would have entered the coronary circulation from the aneurysm which is situated well above the coronary artery orifices. No active lesions of rheumatic disease were found in the myocardium.

The enlarged (400 gm) spleen is also consistent with the diagnosis of subacute bacterial endocarditis. It contains infarcts that are much more actively inflamed than are generally seen in viridans endocarditis. Purulent exudate is found at the margins of these infarcts.

All lobes of both lungs contained fibrinopurulent exudate and edema fluid. Many alveoli are lined by

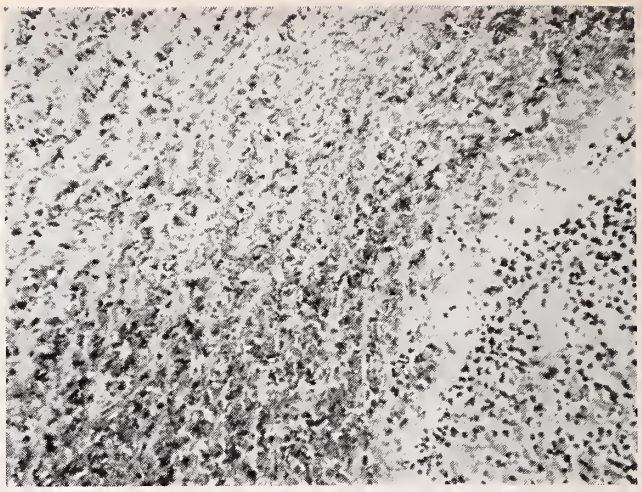


FIGURE 9
ACUTE inflammatory reaction in the wall of the aneurysm.

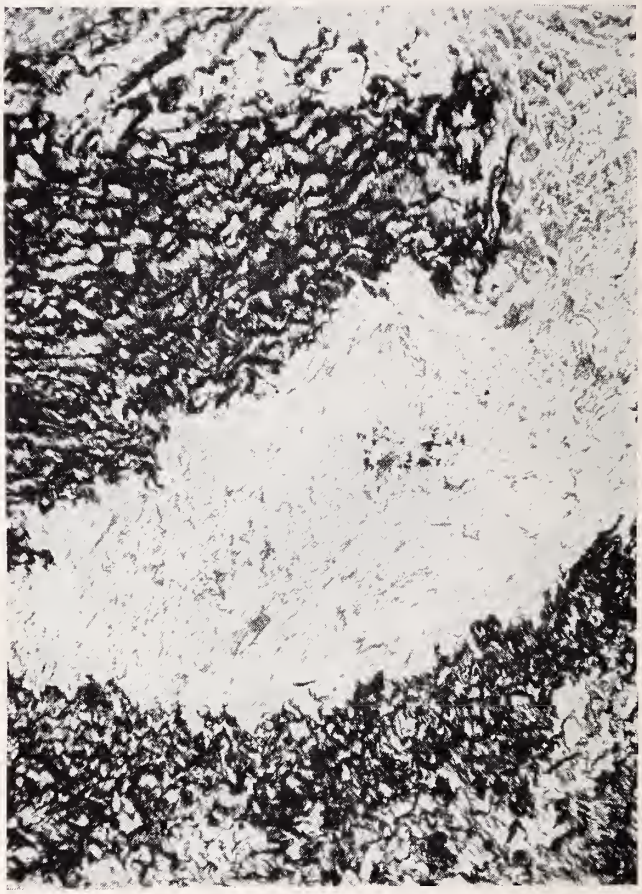


FIGURE 10
ELASTIC tissue stain of edge of aneurysm showing rupture of elastic lamellae.

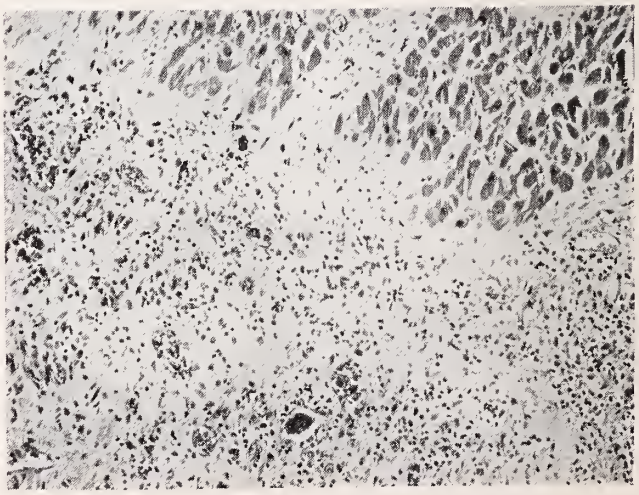


FIGURE 11
HEALING embolic lesion in interventricular septum.

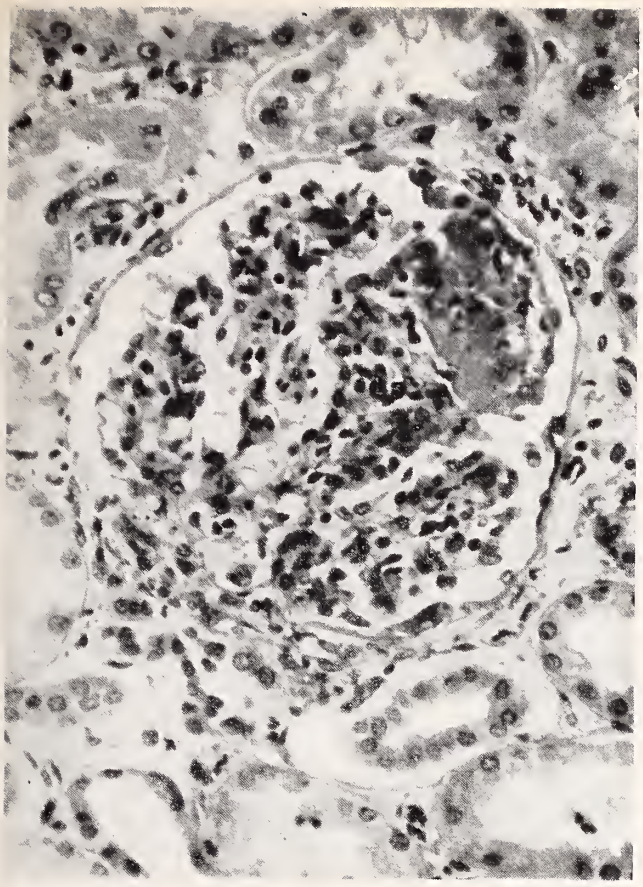


FIGURE 12
EMBOLIC lesion in capillary loop of glomerulus.

hyaline membranes. The pleura, however, is not involved. It may be surmised because of these characteristics that terminal viral infection occurred in the lungs. There are also whorled cellular fibrous nodules, often called Masson bodies, which are sometimes interpreted as evidence of healed rheumatic pneumonia.

Grossly, the kidneys had the typical "flea-bitten" appearance seen in embolic glomerulonephritis. This is confirmed on microscopic study by the finding of acute, healing and healed focal lesions in about half of the glomeruli as well as many fresh hemorrhages into tubules (Figure 12). The fact that uninvolved portions of the tufts are completely normal and that the focal lesions are in all stages of development strongly support the diagnosis of embolic glomerulonephritis associated with subacute blood stream infection.

In summary, it should be noted that although mycotic aneurysms of the sinuses of Valsalva are rare, they are a well recognized complication of subacute bacterial endocarditis of the aortic valve. It must be admitted, however, that in this case no such valve lesion was found and that the aneurysm is a bit higher in position than they usually are located. It should also be stressed that antibacterial therapy has greatly altered the pathological processes involved in bacterial endocarditis of all types and that when these are not completely arrested by therapy, one may expect to find unusual complications such as mycotic aneurysm formation. Such lesions can apparently resist sterilization by antibiotics because they are recessed from the main flow of blood. As a consequence, in the few fatal cases of bacterial endocarditis that still come to necropsy, such aneurysms seem to be more commonly found than they were many years ago.

A PHYSICIAN: Were the vegetations in the aneurysm cultured at necropsy?

DR. WILENS: The vegetations were not cultured but blood obtained postmortem by heart puncture grew out *Staphylococcus epidermidis* and Pseudomonas.

A PHYSICIAN: Did the brain show any significant lesions?

DR. WILENS: There was a slight degree of subarachnoid hemorrhage in the left frontal region that may have been embolic in origin although no emboli were demonstrated. There were no lesions within the brain substance.

DR. STEINMETZ (in closing): In a clinical-pathological conference published recently in *The New England Journal of Medicine,* a mycotic aneurysm of the right coronary artery with extension to the pericardium was described. I thought of the possibility of such a lesion in this case but there were no electrocardiographic findings to support such a diagnosis.

Final Anatomic Diagnoses:

Rheumatic Endocarditis of Mitral and Aortic Valves.

Mitral insufficiency.

Cardiac hypertrophy and dilatation.

Mycotic Aneurysm of Ascending Aorta with Thrombus Formation due to Undetermined Organism.

Organizing fibrinous pericarditis.

Emboli in femoral arteries (clinical).

Recent operation: embolectomy, left femoral artery.

Infarcts of spleen, infected.

Abscess in vertebral bone marrow.

Interstitial myocarditis, focal.

Splenomegaly.

Hemothorax, bilateral.

Embolic Glomerulonephritis.

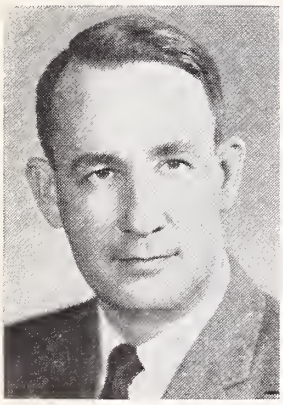
Interstitial and Hyaline Membrane Pneumonia, Diffuse.

Pia-arachnoid hemorrhage, slight, old, left frontal region. ◄

The Management of Hand Injuries

JAMES B. WRAY, M.D.
Indianapolis*

A sound knowledge of the rudiments of good hand care is essential to any physician who is called upon to meet a variety of problems in his daily practice. While the management of severe injuries may be complicated, it is possible to render first class treatment to many cases by applying a limited number of relatively simple principles. This paper will present the more important of these principles. No attempt will be made to present technical details.



The care of a hand injury may be considered to include three phases: an *evaluation phase;* a phase of *early wound care;* and a phase of *late wound care.* All general physicians should be able to perform a sound evaluation and should be able to carry out adequate early wound care. Delayed wound treatment, in contrast to evaluation and early wound care, is best carried out by a physician who has had special training in hand surgery.

The Evaluation

When faced with a patient with a hand injury, the examiner should evaluate tendon and nerve function and the integrity of the circulation and of the skeleton. For the most part the types of tissue injured are determined by the location of the wound. For example, wounds of the dorsum of the hand may be expected to involve only tendon and bone. Wounds of the anatomically more complex volar surface of the hand or digits may also involve important arteries and nerves in addition to tendon and bone.

Bone injury is recognized with x-ray examination. X-rays should be taken in every injury of the hand.

Tendon injuries may be identified with ease. Extensor tendon lacerations result in the inability of the patient to extend the joint immediately distal to the wound. Lacerations of the profundus tendons of the fingers and of the flexor tendon of the thumb are recognized by the inability of the patient to flex the distal phalanges of the involved digit or, in the case of palmar injuries, of those digits immediately distal to the wound. Lacerations of the sublimis tendons will not be demonstrated by this maneuver but may be disregarded by the examiner. A finger will function quite satisfactorily without a sublimis and it is not necessary to repair this tendon.

The circulatory status of the hand is determined by compressing the pulp of the finger or fingers distal to the wound. A rapid return of color following compression of the finger tip indicates that there is an adequate blood supply to the digit. Circulatory insufficiency is rarely seen in hand injuries other than deep lacerations of the fingers.

Recognition of a nerve injury is easily accomplished in the cooperative adult patient. The basis of an adequate neurological examination is the evaluation of sensation on both sides of a suspected digit or digits. If the wound is localized to one or more digits only those injured need to be checked. If the wound is located in the palm or wrist, the examiner must check sensation in all digits. Loss of sensation in the index finger tip in such cases indicates that the median nerve is involved. Loss of sensation in the tip of the little finger signifies that the ulnar nerve has been cut.

It may not be possible to obtain a reliable sensory check in the young child. In such cases a final diagnosis must rest upon a careful exploration of the wound.

Early Wound Care

Wounds of the skin and bones of the hand should be treated as emergencies. Each wound must be thoroughly cleansed. Minor lacerations are adequately handled with a soap and water wash under running tap water. More severe injuries should be irrigated in the operating room with 500 to 1000 cc. of normal saline. Obviously dead tissue and foreign material should be removed from the wound at the time of the irrigation. Unless the wound is an extremely dirty one, it should be closed by approximating the skin edges with a few loose stitches. Antibiotics should be administered to the patient. Cases in which the skin edges will not approximate should be closed with a split thickness skin graft. Full thickness and pedicle skin grafts are much more difficult to apply successfully than split thickness grafts and are best avoided by those not specially trained in hand surgery.

Lacerations of nerves may be treat-

* Chairman and professor, Department of Orthopedic Surgery, Indiana University Medical Center, 1100 W. Michigan St., Indianapolis 46207.

ed by immediate suture in clean incised wounds. Suture should be performed with four zero or five zero black silk. It is imperative that the suture material not enter the nerve tissue proper but only the fascial covering of the nerve. The suture line must be under minimal tension.

Fractures of the metacarpals or of the proximal or middle phalanges of the digits should be treated with a plaster cast that immobilizes the wrist in slight extension and the involved digit in a position of approximately 50% flexion at each of the joints. Fractures of the distal phalanx can be satisfactorily immobilized with a simple aluminum splint to the finger. Immobilization should be continued for three weeks in adults and for two weeks in children.

If the wound is clean and can be closed by approximation of the skin edges, one may perform immediate suture of lacerated extensor tendons. Such repairs should always be performed in the operating room. Extensor tendons require three weeks of immobilization with the wrist in slight extension and the digits in a position of approximately 90% of full extension. Three zero black silk is an adequate tendon suture and should be inserted in the tendon in as simple a manner as will allow approximation of the tendon ends. Extensor tendon repair should be delayed for two to three weeks in dirty wounds, in wounds that cannot be closed by approximation of the skin and in wounds complicated by underlying fracture.

Delayed Wound Care

A laceration of any tendon complicated by an underlying fracture, laceration of the profundus tendon of a finger, or a laceration of the flexor pollicus longus tendon of the thumb is most successfully managed by delayed repair two to three weeks after the injury when the skin wound is healed and the possibility of crippling infection or adhesion formation following surgery is much less. Lacerations of the flexor profundus within its sheath, i.e., that area from the distal palmar crease to the distal interphalangeal joint, are best treated by the insertion of a free tendon graft in the adult. In the child such lacerations may be managed successfully by suture of the tendon ends two to three weeks after the skin is healed. If the sublimis tendons are involved in such cases they should be locally resected prior to suturing the profundus.

Nerve lacerations that cannot be repaired immediately should be sutured two to three weeks after the skin wound and fractures of the underlying skeleton have healed. ◄

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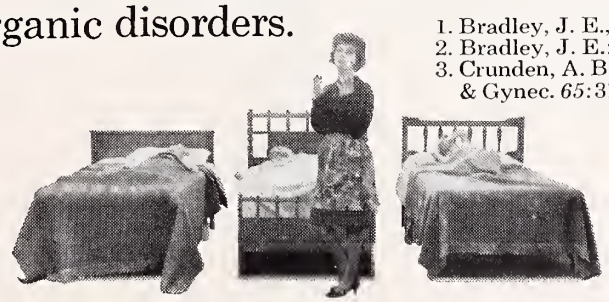
1. Bradley, J. E., *et al.*: J. Pediat. *38*:41 (Jan.) 1951.
2. Bradley, J. E.: Mod. Med. *20*:71 (Oct. 15) 1952.
3. Crunden, A. B., Jr., and Davis, W. A.: Am. J. Obst. & Gynec. *65*:311 (Feb.) 1953.



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X-RAY CONFERENCE

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Arteriographic Diagnosis of Mass Lesions of the Thyroid

ERICH K. LANG, M.D.
Shreveport, La.*

A 72-year-old white female was admitted to Methodist Hospital, Indianapolis, complaining of difficulty in swallowing, progressive enlargement of the neck, respiratory stridor, progressive weight loss, nervousness and increased sweating of the palmar areas of both hands and feet. The patient reported progressive increase of symptomatology during the past six months.

Laboratory studies revealed the protein bound iodine to be markedly elevated. The BMR was, likewise, elevated. 131-I uptake showed marked increase of the two and 24 hour values. Physical examination revealed a rapid pulse and an unevenly enlarged thyroid, suggesting a multinodular characteristic. A mild exopthalmos was readily appreciated. Stellway sign was not positive. A scintiscanogram demonstrated homogeneously increased uptake in both thyroid lobes and in the isthmus segment.

A selective right and left carotid arteriogram demonstrated marked hypertrophy of the superior thyroidal arteries and a diffuse stain of what appeared to be a huge and hypervascular thyroid. Displacement and splaying of both the right as well as the left common carotid arteries, by this mass, was appreciated (Figure 1). An arteriogram of the left thyrocervical trunk demonstrated marked enlargement of the left inferior thyroidal artery. The composite arteriographic picture suggested a marked hypertrophy and hyperplasia of the entire thyroid, with homogeneous increase of vascularity.

In view of the age of the patient, fractionated 131-I therapy was considered best to correct the condition.

Discussion

Selective arteriography of the external carotids and the thyrocervical trunks is a technically simple pro-

FIGURE 1

NOTE the marked splaying and displacement of the right common carotid artery to the right. There is marked hypertrophy of a huge superior thyroidal artery, which is likewise, splayed around a huge mass (arrows).

* From the Department of Radiology, Louisiana State University School of Medicine, Confederate Memorial Center, Shreveport, La. 71106. Dr. Lang formerly was at Methodist Hospital, Indianapolis.

cedure, and allows assessment of the vascular supply of the thyroid. "Hot" nodules are readily appreciated on basis of a markedly increased vascular stain of such a mass. Arteriovenous shunts, observed in some types of hyperthyroid conditions, and in thyroid carcinoma are, likewise, readily demonstrable. The invasiveness of thyroid carcinoma into adjacent structures and through the capsule is readily appreciated on basis of cannibalism of the vascular supply of an adjacent organ system.

The procedure is felt to be of great value to the surgeon for preoperative assessment of the vascular supply and adds adjunct information to scintiscanogram attempting assessment of "cold" or "hot" nodules. The method is felt to be useful for the investigation and assessment of infiltrating carcinoma of the thyroid, particularly small cell carcinoma, which may show characteristic cannibalization of adjacent arterial systems. ◄

Medical Explorer Posts

Since Medical Explorer Posts in the Boy Scout program are comprised of youths having a strong interest in entering medicine or an allied field, they can serve as an ideal medium for providing advanced first aid training.

The AMA's Council on Rural Health, as part of its five-point program for improving emergency medical services in rural areas, has stressed the need for at least one member of every rural family to be trained in first aid procedures.

As one means of attaining this goal, the Council is encouraging those medical societies which sponsor Medical Explorer Posts as well as those which initiate new posts to provide experience in training for advanced first aid treatment in addition to vocational experience. Such training would be particularly appropriate for those posts which have hospitals or other medical facilities as their central meeting places, have physicians and other health professionals as advisors and can capitalize upon the availability of health personnel and aides who are on the scene.

"The opportunity to explore a vocational field and at the same time be of service to people who are sick or injured, will lend greater appeal to Medical Explorer Posts," the Council said.

The Medical Explorer Post movement has expanded greatly since June, 1965, when the AMA's House of Delegates, at the Annual Convention, adopted a resolution urging state and local medical societies to encourage widespread community development of the Explorer Scout program for Medical Specialty Posts throughout the nation.

The Arthritis Foundation salutes the thousands of dedicated physicians who volunteer their services in the nation's fight against crippling arthritis.

The Arthritis Foundation is the sole national voluntary health agency committed to conquering the rheumatic diseases. It provides the means for dynamic partnership between physicians and laymen to marshal leadership and resources toward the solution of this major national health problem.

The Arthritis Foundation looks forward to rapid growth with increasing opportunity for physicians to participate in the arthritis movement. For further information about The Arthritis Foundation and its programs write to the Foundation chapter in your community or to the Medical Department, Box 2525, New York, N.Y. 10001.

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Contraindications: Glaucoma or severe cardiac disease.

Precautions: Since varying degrees of urinary hesitancy may occur in elderly males with prostatic hypertrophy, this should be watched for in such patients until they have gained some experience with the drug. Although never reported, theoretically a curare-like action may occur with possible loss of voluntary muscle control. Such patients should receive prompt and continuing artificial respiration until the drug effect has been exhausted.

Side Effects: The more common side effects, in order of incidence, are xerostomia, mydriasis, hesitancy of urination and gastric fullness.

Dosage: The maximal tolerated dosage is usually the most effective. For most *adult* patients this will be four to six 15-mg. tablets daily in divided doses. In severe conditions as many as two tablets four to six times daily may be required. Pro-Banthine (brand of propantheline bromide) is supplied as tablets of 15 mg., as prolonged-acting tablets of 30 mg. and, for parenteral use, as serum-type vials of 30 mg. The parenteral dose should be adjusted to the patient's requirement and may be up to 30 mg. or more every six hours, intramuscularly or intravenously.

(1) Bilbao, M. K.; Frische, L. H.; Rösch, J., and Dotter, C. T.: Hypotonic Duodenography, Scientific Exhibit, Radiological Society of North America, Chicago, Nov. 27–Dec. 2, 1966.

(2) Bilbao, M. K.; Frische, L. H.; Dotter, C. T., and Rösch, J.: Hypotonic Duodenography, Radiology *89*:438-443 (Sept.) 1967.

SEARLE

Research in the Service of Medicine

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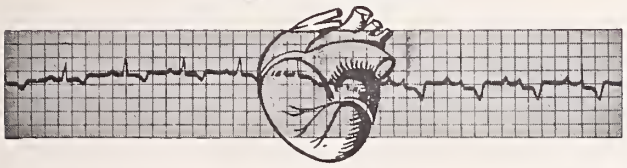
Electrocardiogram of the month



Presented as a regular feature of The JOURNAL, Electrocardiogram of the Month is a series of short talks on cardiovascular diagnosis and treatment, edited by the staff of the Krannert Heart Research Institute, Marion County General Hospital and the Department of Medicine, Indiana University School of Medicine, Indianapolis.

Aberrancy of Intraventricular Conduction Due to "Critical Condition"

CHARLES FISCH, M.D.
Indianapolis

ONE of the more common causes of aberrant intraventricular conduction is a ventricular rate which exceeds the ability of the specialized conduction tissue to recover. As a result, conduction via this particular portion of the conduction tissue is blocked. This mechanism of aberrancy has been termed "critical conduction rate." An example of this aberrancy is demonstrated in Figure 1.

The R-R interval of the normally conducted QRS inscribed in the second row varies from 0.76 to 0.84 seconds. However, the increase of the sinus rate and foreshortening of R-R to anything less than 0.76 seconds exceeds the ability of the left bundle branch to recover ("critical conduction rate") and a left bundle branch block pattern is recorded. The mechanism of aberrancy should be clearly differentiated from the so-called "Ashman phenomenon" in which the aberrancy of the QRS is due to prolongation of the refractoriness secondary to a prolonged antecedent R-R interval.

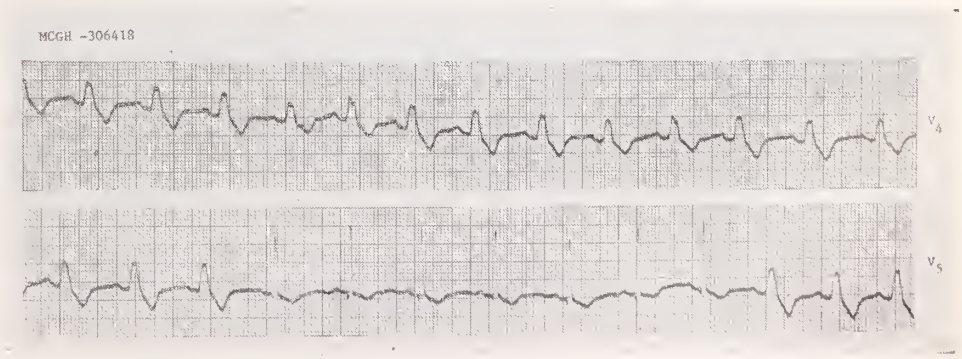


FIGURE 1
THIS figure demonstrates "critical conduction rate" of the left bundle branch. See text.

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Important Precautions: Carefully supervise dose and amounts prescribed, especially for patients prone to overdose themselves. Excessive prolonged use has been reported to result in dependence or habituation in susceptible persons, as alcoholics, ex-addicts, and other severe psychoneurotics. After prolonged excessive dosage, reduce dosage gradually to avoid possibly severe withdrawal reactions. Abrupt discontinuance of excessive doses has sometimes resulted in epileptiform seizures.

Warn patients of possible reduced alcohol tolerance, with resultant slowing of reaction time and impairment of judgment and coordination.

Reduce dose if drowsiness, ataxia or visual disturbance occurs; if persistent, patients should not operate vehicles or dangerous machinery.

Side Effects include drowsiness, usually transient; if persistent and associated with ataxia, usually responds to dose reduction; occasionally concomitant CNS stimulants (amphetamine, mephentermine sulfate) are desirable. Allergic or idiosyncratic reactions are rare, but such reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses who have had no previous contact with meprobamate. Previous history of allergy may or may not be related to incidence of reactions. Mild reactions are characterized by itchy urticarial or erythematous maculopapular rash, generalized or confined to groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema and fever have been reported. One fatal case of bullous dermatitis following intermittent use of meprobamate with prednisolone has been reported. If allergic reaction occurs, meprobamate should be stopped and not reinstituted. Severe reactions, observed very rarely, include angioneurotic edema, bronchial spasms, fever, fainting spells, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case) and hyperthermia. Treat symptomatically as with epinephrine, antihistamine and possibly hydrocortisone. Aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis and hemolytic anemia have occurred rarely, almost always in presence of known toxic agents. A few cases of leukopenia, usually transient, have been reported on continuous administration.

Meprobamate may sometimes precipitate grand mal attacks in patients susceptible to both grand and petit mal. Extremely large doses can produce rhythmic fast activity in the cortical pattern. Impairment of accommodation and visual acuity has been reported rarely. After excessive dosage for weeks or months, withdraw gradually (1 or 2 weeks) to avoid recurrence of pretreatment symptoms (insomnia, severe anxiety, anorexia). Abrupt discontinuance of excessive doses has sometimes resulted in vomiting, ataxia, tremors, muscle twitching and epileptiform seizures. Prescribe very cautiously and in small amounts for patients with suicidal tendencies. Suicidal attempts have resulted in coma, shock, vasomotor and respiratory collapse and anuria. Excessive doses have resulted in prompt sleep; reduction of blood pressure, pulse and respiratory rates to basal levels; and occasionally hyperventilation. Treat with immediate gastric lavage and appropriate symptomatic therapy. (CNS stimulants and pressor amines as indicated.) Doses above 2400 mg./day are not recommended.

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FRACTURES AND ORTHOPEDIC PROBLEMS

"Fractures and Orthopedic Problems" is a feature which will appear regularly. It will outline conditions involving bones and joints which will be of interest to physicians in general and special types of practice. It will be edited by George F. Rapp, M.D. of Indianapolis. The submission of short illustrated articles to this feature is invited.

Pseudo-pseudohypoparathyroidism

*GEORGE F. RAPP, M.D.**
*DAVID TILLEMA, M.D.***
Indianapolis

PSEUDOHYPOPARATHYROIDISM was first described by Albright in 1942 and he correlated it with a failure of end organ response to parathyroid hormone. These patients had the findings of hypoparathyroidism plus round faces, short, thick-set stature, short metacarpals and metatarsals, and subcutaneous foci of ectopic calcifications. Tetany and convulsive symptoms, intracranial calcifications, lenticular opacities and dental abnormalities may also be present in this syndrome.[1]

In 1952 Albright described the syndrome of pseudo-pseudohypoparathyroidism in which many of the clinical findings of pseudohypoparathyroidism were present, but the serum, calcium and phosphorus values were normal.[2]

The purpose of this paper is to present two new cases which fulfill Albright's criteria for pseudo-pseudohypoparathyroidism.

Case #1—A 14-year-old white female was admitted to St. Vincent's Hospital on August 31, 1966 with deformities of the hands and feet due to short metacarpals and metatarsals. She had no other complaints and had a negative past history of other abnormalities.

Her social development appeared to be normal; however, her mental development was low normal. She had difficulty with her studies in school and was required to repeat the fourth grade.

Her mother had died of Hodgkin's disease and her father's whereabouts were unknown. She lived with relatives who could not recall any similar developmental abnormalities in her parents or other relatives.

On physical examination, the patient appeared pleasant and cheerful, and was noted to have a round face and slightly obese build. Her sexual development revealed early signs of maturation. Her menses had not begun. The fourth and fifth metacarpals on the right hand were short as was the fifth metacarpal on the left. When a fist was made she had a characteristic dimpling where the knuckles were expected (Figure 1). The feet were also noted to have short metatarsals: the fourth and fifth on the left and the third, fourth and fifth on the right. A marked valgus deformity of the second right toe was also present (Figure 2). The general examination was normal with the patient showing no signs of hypocalcemia, Chvostek's sign or Trousseau's test. The peroneal test also was normal. There was no evidence of ectopic calcification on examination.

X-rays revealed shortening of the metatarsals and metacarpals as described due to premature closure of the epiphysis. Skull x-rays failed to reveal any intercranial calcification.

Laboratory Data

The hemoglobin was 13.8 with a normal white cell count and differential. Serum electrolytes, BUN, fasting blood sugar and alkaline phosphatase were also normal. The

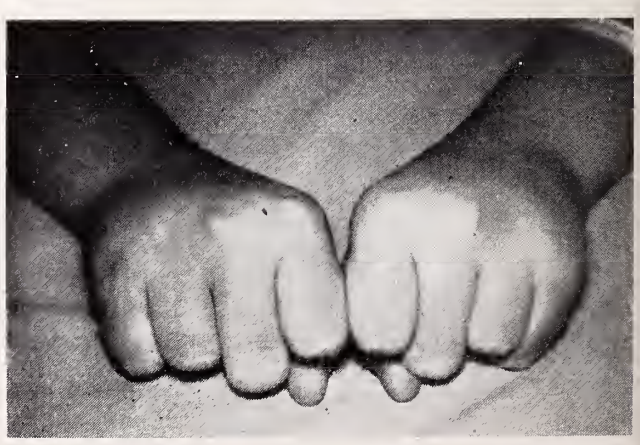

FIGURE 1
NOTE that when a fist was made, the patient had a characteristic dimpling where the knuckles should be (Case #1).

* 508 Hume Mansur Bldg., Indianapolis 46204.

** Resident, Indiana University Medical Center, Indianapolis 46207.

FIGURE 2
THIS photograph shows the marked valgus deformity of the second right toe and deformities from short metatarsals (Case #1).

FIGURE 3
X-RAYS revealed early closure of the epiphysis of the fourth metacarpals (Case #2).

serum calcium was 10.8 mg. % and a phosphorus was 4.8 mg. %. The 24-hour urinary calcium on a low calcium diet was 0.12 grams, which is considered within normal limits. An Ellsworth-Howard test was performed giving 200 units of parathyroid hormone (Lilly) intravenously. This gave a four to five-fold increase in urinary phosphorus excretion which was considered normal. The serum calcium, phosphorus and alkaline phosphatase studies were repeated at two month intervals for six months and were always within normal limits.

Case #2—This nine-year-old white female was seen at the U.S. Army Hospital at Fort Jackson, South Carolina, in 1962 with a complaint of deformities of her hands and feet. There was no family history of similar deformities and one sibling was normal. The patient was noted to be very slow mentally by her parents and this was obvious to the examining physician.

On physical examination, the striking findings were the patient's short squat stature, round face and the hand deformities due to shortening of both fourth metacarpals and foot deformities due to shortening of bilateral third and fourth metatarsals.

X-rays revealed early closure of the epiphysis of the fourth metacarpals and the third and fourth metatarsals bilaterally with shortening of the respective rays (Figures 3, 4). A bone survey was otherwise normal. Multiple serum calciums, phosphorus and alkaline phosphatase determinations over a two-year period were normal. The 24-hour urine calcium and phosphorus were normal on one occasion after the patient had been on a fixed calcium intake. Routine urinalysis and BUN were normal.

Discussion

Hypoparathyroidism is most often seen following thyroid surgery but may be idiopathic. Absence of the parathyroid hormone causes a decreased renal excretion of phosphorus with a subsequent elevation in serum phosphorus. The resultant depression in serum calcium gives the classic symptoms of an increased excitability of peripheral nerves and ganglia with resultant tetany, hyperactivity of the autonomic nervous system, positive Chvostek's and Trousseau's signs.

Pseudohypoparathyroidism was first seen by Albright in a patient with idiopathic epilepsy who was noted to have increased density to the skull on x-ray similar to a patient with idiopathic hypoparathyroidism. The patient was noted to have a positive Chvostek's sign, her serum calcium was depressed and the serum inorganic phosphorus level elevated. However, the patient did not respond to parathyroid hormone and Dr. Albright postulated that the end organs were not responding to the hormone. Other authors have since postulated that there may be a defective hormone or that an exogenous substance could deactivate the hormone. The latter two theories are less commonly accepted.

FIGURE 4
X-RAYS also revealed early closure of the third and fourth metatarsals bilaterally (Case #2).

To help prove his theory, Dr. Albright explored the patient's neck and normal parathyroid tissue was biopsied. The patient responded to Dihydrotachysterol (AT-10) and the epilepsy ceased. Other physical findings in this patient were short stature, round face and the index finger was shorter than the middle finger. He also described two other cases.[1]

In 1952, Albright described the first case of pseudo-pseudohypoparathyroidism in a patient who had all the classic physical findings of pseudohypoparathyroidism but no hyperphosphatemia and no hypocalcemia. This patient did not have calcification of the basal ganglion.[2]

Albright postulated pseudohypoparathyroidism was due to a failure of end organ response to the parathyroid hormone. Less than 50 cases of pseudo-pseudohypoparathyroidism have been reported since 1952. Some cases have been related to Turner's syndrome and gonadohypoplasia.

Some authors feel that pseudo-pseudohypoparathyroidism is an incompletely expressed form of pseudohypoparathyroidism. Multiple cases of both occurring in one family are reported, and there is definitely a strong hereditary tendency to both diseases.[4,7,8] Both have a similar sex distribution.[5] Nine members of a family with these conditions have been reported.[9] Gershberg and Wesley reported a case of a patient at age 14 who had the findings of pseudohypoparathyroidism with hypocalcemia convulsions, but at age 20 was found to have normal values for serum calcium and phosphorus. Then during pregnancy the patient developed symptoms of hypocalcemia.[3] Ray and Gardner have reported a case which went from pseudo-pseudohypoparathyroidism to pseudohypoparathyroidism.[6] Pseudo-pseudohypoparathyroidism may represent the "forme fruste" of the genetically determined pseudohypoparathyroidism syndrome.

The use of laboratory calcium and phosphorus studies is often difficult and confusing in these cases. Perhaps multiple normal serum calcium and phosphorus levels drawn over a period of years is best to separate these syndromes, if they truly may be separated. If phosphorus excretion tests are done, a glomerular filtration rate should be done also to rule out the normal diurnal effect of increased phosphorus output.

Recently authors feel that the term pseudo-pseudohypoparathyroidism should be abolished. The term in no way relates to the pathophysiology of the disease. Mann et al. has suggested that this should be called Albright's Hereditary Osteodystrophy to honor Dr. Fuller Albright.[5]

Summary

Two cases of pseudo-pseudohypoparathyroidism are presented. The historical background and the pathophysiology of this syndrome is presented.

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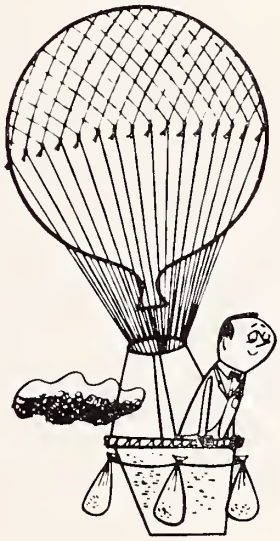

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The Cancer You View

Edited by

Edwin E. Pontius, M.D.

Indianapolis

CHARLES R. THOMAS, M.D.
Indianapolis

A 68-year-old widow complained of a sore of the vulva that didn't heal. As pictured, it was an ulcerated, irregular and tender area. She had been applying ointment to it for many weeks without relief.

What is this lesion?

What other lesions of the vulva might appear similar?

What diagnostic procedures would you use?

After diagnosis, what treatment is recommended?

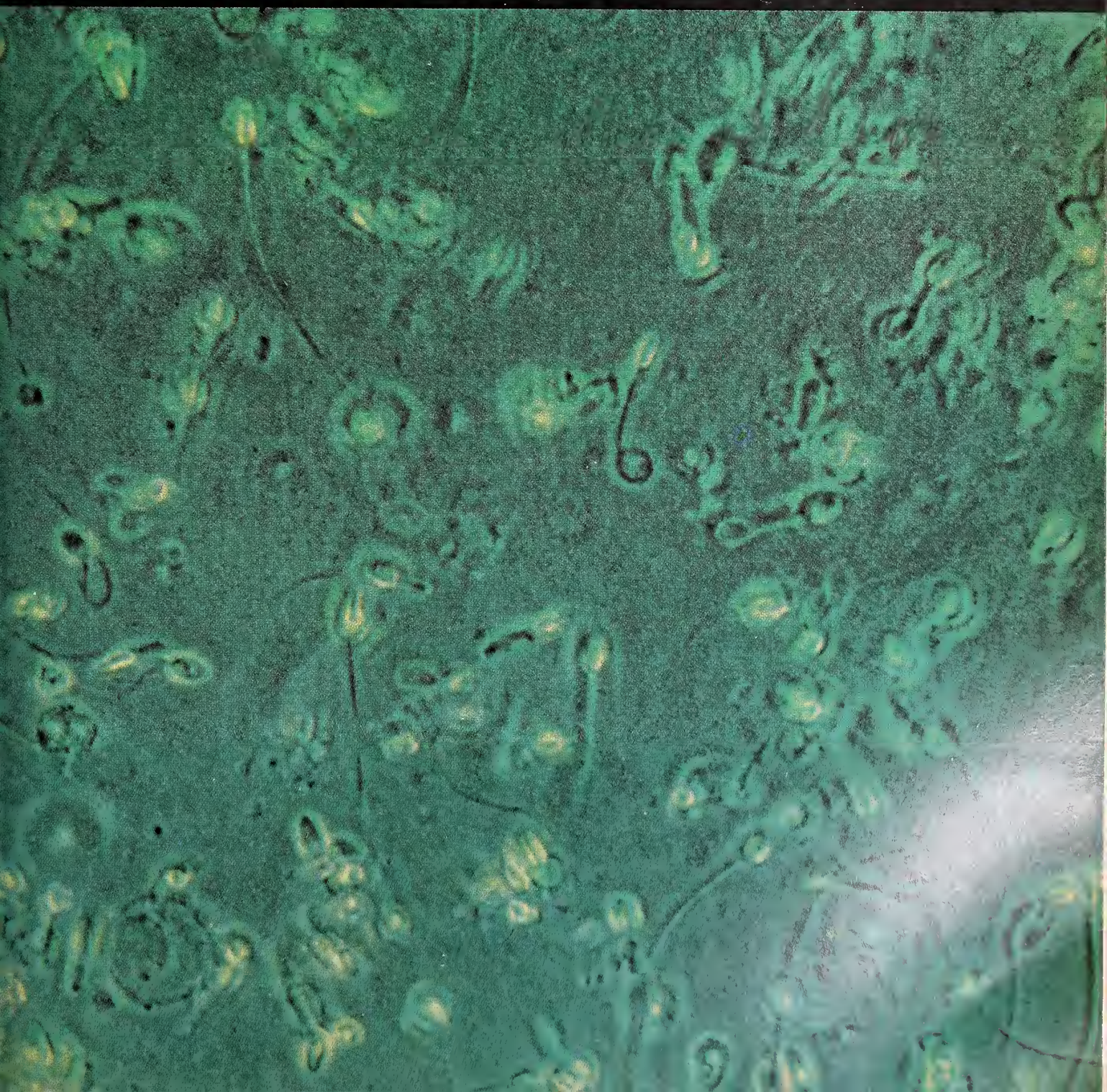
For diagnosis and discussion please see page 539.

Supported in part by a grant from the American Cancer Society, Indiana Division, Inc.

When the talk turns to oral contraceptives, it makes medical sense to remember low-dose Norinyl®-1.

(norethindrone 1mg. & mestranol 0.05mg.)

Turn page for contraindications, precautions and side effects.



Reduction of oral contraceptive dosage to the lowest effective levels is a well-accepted principle of conservative medical practice. In keeping with this view, Norinyl is now also available as Norinyl-1, containing exactly one half the previous dosage of norethindrone and mestranol. Clinical experience has established that effective fertility control can be achieved with the same degree of reliability and safety with new Norinyl-1 when taken as directed.

What about switching patients from higher dosage forms?

In transferring patients to low-dose Norinyl-1 from higher-dosage oral contraceptives, some breakthrough bleeding may occur in the early cycles. In the majority of cases the bleeding episode is mild and self-limited. The long-term advantages of the lower dosage form should be weighed against the inconvenience of possible breakthrough bleeding in the individual patient.

Contraindications: 1. Patients with thrombophlebitis or with a history of thrombophlebitis or pulmonary embolism. 2. Liver dysfunction or disease. 3. Patients with known or suspected carcinoma of the breast or genital organs. 4. Undiagnosed vaginal bleeding.

Warnings: 1. Discontinue medication pending examination if there is sudden partial or complete loss of vision or if there is a sudden onset of proptosis, diplopia or migraine. If examination reveals papilledema or retinal vascular lesions, medication should be withdrawn. 2. Since the safety of NORINYL-1 (norethindrone 1 mg. with mestranol 0.05 mg.) in pregnancy has not been demonstrated, it is recommended that for any patient who has missed two consecutive periods, pregnancy should be ruled out before continuing the contraceptive regimen. If the patient has not adhered to the prescribed schedule, the possibility of pregnancy should be considered at the time of the first missed period. 3. Detectable amounts of the active ingredients in oral contraceptives have been identified in the milk of mothers receiving these drugs. The significance of this dose to the infant has not been determined.

Precautions: 1. The pretreatment physical examination should include special reference to breast and pelvic organs, as well as a Papanicolaou smear. 2. Endocrine and possibly liver function tests may be affected by treatment with NORINYL-1. Therefore, if such tests are abnormal in a patient taking NORINYL-1 it is recommended that they be repeated after the drug has been withdrawn for two months. 3. Under the influence of estrogen-progestogen preparations, preexisting uterine fibromyomata may increase in size. 4. Because these agents may cause some degree of fluid retention, conditions that may be influenced by this factor, such as epilepsy, migraine, asthma, cardiac or renal dysfunction, require careful observation. 5. NORINYL-1 should be used with caution in patients with a history of cerebrovascular accident. 6. In relation to breakthrough bleeding, and as in all cases of irregular bleeding *per vaginam*, nonfunctional causes should be borne in mind. In cases of undiagnosed vaginal bleeding, adequate diagnostic measures are indicated. 7. Patients with a history of psychic depression should be carefully observed and the drug discontinued if the depression recurs to a serious degree. 8. Any possible influence of prolonged NORINYL-1 therapy on pituitary, ovarian, adrenal, hepatic or uterine function awaits further study. 9. A decrease in glucose tolerance has been observed in a small percentage of patients on oral contraceptives. The mechanism of this decrease is obscure. For this reason, diabetic patients should be carefully observed while receiving NORINYL-1 therapy. 10. Because of the occasional occurrence of thrombophlebitis and pulmonary embolism in patients taking oral contraceptives, the physician should be alert to the earliest manifestations of the disease. 11. Because of the effects of estrogens on epiphyseal closure, NORINYL-1 should be used judiciously in young patients in whom bone growth is not complete. 12. The age of the patient constitutes no absolute limiting factor, although treatment with NORINYL-1 may mask the onset of the climacteric. 13. The pathologist should be advised of NORINYL-1 therapy when relevant specimens are submitted.

Side effects observed in patients receiving oral contraceptives: The following adverse reactions have been observed in patients receiving oral contraceptives: nausea, vomiting, gastrointestinal symptoms (such as abdominal cramps and bloating), breakthrough bleeding, spotting, change in menstrual flow, amenorrhea, edema, chloasma or melasma, breast changes (tenderness, enlargement and secretion), change in weight (increase or decrease), changes in cervical erosion and cervical secretions, suppression of lactation when given immediately postpartum, cholestatic jaundice, migraine, rash (allergic), rise in blood pressure in susceptible individuals, mental depression.

Although the following side effects have been reported in users of oral contraceptives, no cause and effect relationship has been established: anovulation post-treatment, premenstrual-like syndrome, changes in libido, changes in appetite, cystitis-like syndrome, headache, nervousness, dizziness, fatigue, backache, hirsutism, loss of scalp hair, erythema multiforme, erythema nodosum, hemorrhagic eruption, itching.

The following occurrences have been observed in users of oral contraceptives (a cause and effect relationship has been neither established nor disproved): thrombophlebitis, pulmonary embolism, neuro-ocular lesions.

The following laboratory results may be altered by the use of oral contraceptives: increased sulfobromophthalein and other hepatic function tests, coagulation tests (increase in prothrombin, Factors VII, VIII, IX and X), thyroid function (increase in PBI and butanol extractable protein-bound iodine and decrease in T^3 values), metyrapone test, pregnanediol determination.

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SYNTEX

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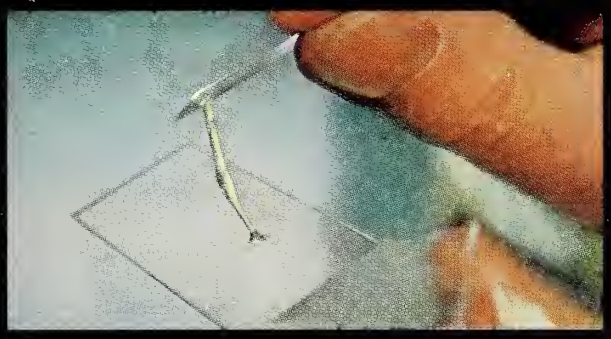
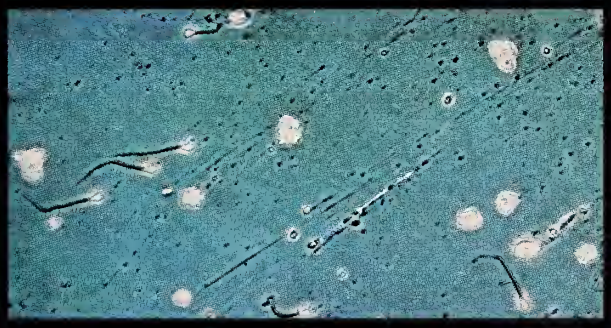
The effectiveness of Norinyl-1 as a low-dose oral contraceptive may be explained by its possible multiple action. In addition to its primary action of suppression of ovulation, Norinyl-1 may offer additional protective mechanisms... (1) creation of a cervical mucus that may be hostile to sperm penetration, and (2) development of an endometrium that may be out of phase with nidation. These effects are illustrated below.

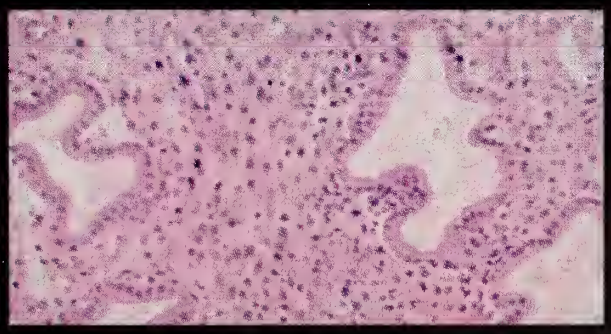
Untreated Patient



Cervical mucus at midcycle is usually thin and watery, with Spinnbarkeit (stretchability) of 15 to 20 cm.

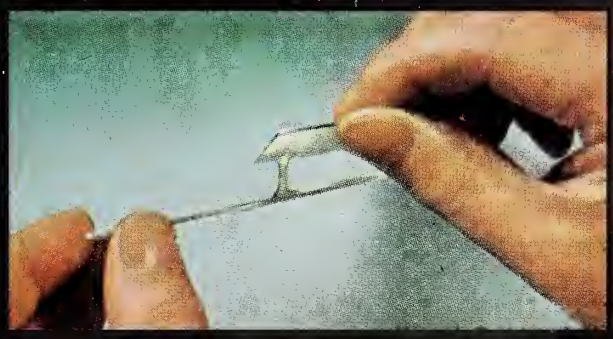


Spermatozoa appear healthy, active, freemoving.

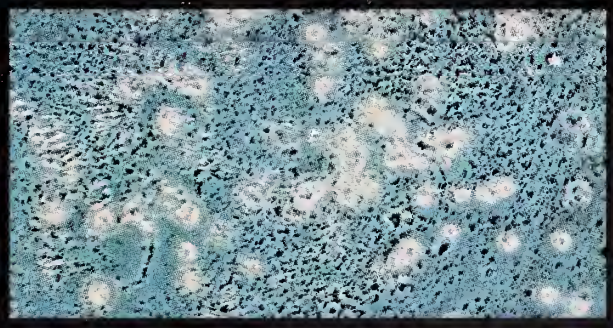


Endometrium of untreated patient is receptive to the fertilized ovum during secretory phase.

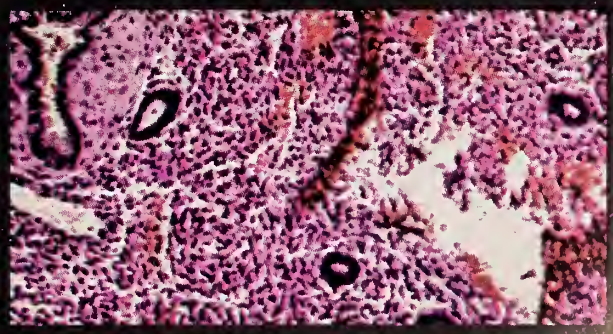
Norinyl-1 Patient



Cervical mucus at midcycle is scanty, viscous—with Spinnbarkeit of 1 cm. or less.



Immobile spermatozoa as they appear in cervical mucus taken from patient treated with Norinyl-1.



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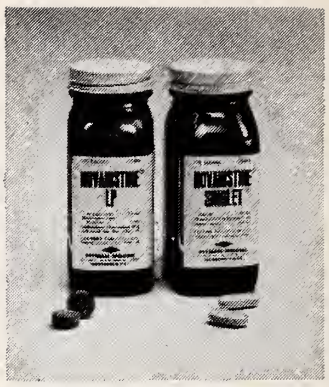

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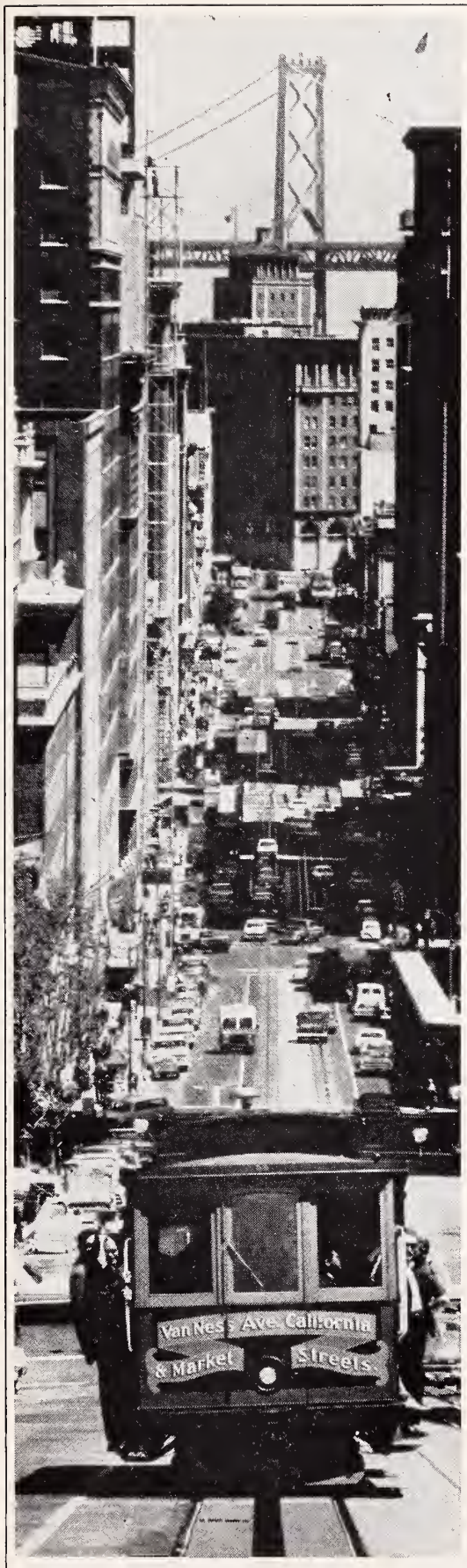

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About Our Cover

(The educational program of the American Cancer Society and its Indiana chapter).

WHILE in this age of scientific conquest man discusses freely such sophisticated topics as heart transplants, cytogenetic changes induced by virus nuclear proteins and mechanical devices as substitutes for body organs or functions, we still must face the simple fact that medical knowledge has not been as broadly applied to the prevention and cure of many diseases, including cancer, as is needed.

We know, for instance, the dangers of tobacco smoke and overexposure to sunlight in carcinogenesis; we know the value of the Pap test, breast self-examination, digital rectal examination and the ten-second guaiac test for occult blood in the stool. Have we actively made maximal use of this knowledge in providing health care? And cancer control—is there a mechanism to activate utilization of all the resources, ideas, manpower and talents of our community to apply that which is already known and proven to meet the health care need in cancer?

Public education programs to reach the student population, as well as adults, and professional educational programs to reach the physicians, dentists, nurses and pharmacists, are successfully being expanded by volunteer members of the American Cancer Society in Indiana. The Society's 55-member Professional Speakers Bureau has provided programs for the continuing education efforts of the Indiana Academy of General Practice, medical societies and local hospital staff groups. A speakers bureau of oral surgeons is arranging to conduct programs on oral cancer for 14 Indiana district dental societies. A statewide program of professional education and continuing education for nurses is expanding rapidly. Cooperative efforts of county medical societies and the Indiana Division of the American Cancer Society are under way in public education efforts. A major program, covering seven counties, combined the efforts of 105 volunteer physicians, 200 lay volunteers and resulted in breast self-examination and instruction for over 2,000 women recently in the Terre Haute area.

Public information and educational activity is being planned to meet community needs and is always arranged with the cooperation of other volunteer and/or professional groups. Such a program scheduled with the Indiana Farm Bureau, Inc. is expected to reach over 500,000 members. A new program with the Home Demonstration Clubs in Indiana has a potential audience of over 65,000. Programs on breast and gynecologic cancer are reaching senior high school girls, their mothers and teachers through programs at numerous Indiana high schools. An extended program of education on the Pap test is under way with 57 chapters of Phi Beta Psi Sorority, to cite a few examples. Informational literature is being dispensed through special racks in pharmacies and in physicians' and dentists' offices. Cooperation with the Indiana Inter-Agency Council on Smoking and Health has a goal of providing in-service training for grade school and high school teachers throughout the state. This year the first "Indiana Cured Cancer Assembly" has been arranged to publicize the fact that cancer can be cured and to spearhead the public educational program.

With the above programs arranged locally and throughout the state, the American Cancer Society continues its extensive support of basic research to learn the causes, and thereby the cure and eradication, of cancer. With $198,533 in re-

search grants now in effect in Indiana institutions, the total contribution to this basic research in Indiana since 1945 has reached $2,068,586.

With the formation and early activities of the Indiana Advisory Group on Heart, Cancer and Stroke, increased effectiveness in the correlation and expansion of voluntary health organizations, including the American Cancer Society programs, with those of the school of medicine and community hospital-based postgraduate medical education centers will result.

With this increasing participation of key medical and lay groups, Cancer Control Month this year takes on added meaning. It should encourage your participation in these efforts.

Featured on this month's cover is a full view of a microsection of an adenocarcinoma of the colon. Our thanks to the Cancer Society, Dr. Edwin E. Pontius, Craig G. Gosling, medical artist, and McKinley Leapley, R.B.P., medical photographer, for the inspiration, art work and layout.

People Problem vs. Food Problem

THE President's Science Advisory Committee has published a three-volume report on "The World Food Problem." Two of the basic conclusions are:

"(1) The scale, severity and duration of the world food problem are so great that a massive, long-range, innovative effort unprecedented in human history will be required to master it, and

"(2) The solution of the problem that will exist after about 1985 *demands* that programs of population control be initiated now. For the immediate future, the food supply is critical."

All of which is remindful of a complete essay on this subject by Dr. Arnold Lieberman, delivered on January 12, 1966, before the meeting of the Indiana Obstetrical and Gynecological Society in Indianapolis, and repeated in substantially the same form before the South African Medical Association[1] on September 8, 1966. (Another *updated* version appears this March in *Lex et Scientiae*).

Dr. Lieberman's thesis is that the population problem is the most urgent the world faces today—exceeding in immediate importance and possibly in ultimate importance the problems of the misuse of nuclear energy and the related international unrests which receive more attention.

Both the population explosion and the closely related world food problem have been recognized and forecast for many years. However, each of these mutually interdependent difficulties has been talked about mostly as something which was to be solved in the future. Now, for the first time, the discussion is urgent in character—it is evident that an all-out effort is required to escape catastrophe, and some discussants have a hunch that we are already too late.

The world's population increases faster than the food supply. People are increasing now at an annual rate of two percent. The increase in food production in 1965 was the highest it has ever been, and it was only 1.5%. There is no reason to think that the food supply can be increased any faster. The only sensible thing to do is control the population[2]— if we do not, massive starvation will soon be with us.

Dr. Lieberman points out that starvation is already endemic in India, and the ability of the better supplied nations to contribute to the alleviation of India's deficiency is limited. The 15 million tons of wheat sent by the U.S. to India in 1965 reduced our large surplus to a normal carryover. Such a large order cannot be filled every year.

World census records tell a grim story. With the control of the great plagues and pestilences, the birth rate has exceeded the death rate and with each life-saving advance in medicine, the rate of population increase goes up even more.

In 1830 one billion people lived on this earth. It required an entire century up to 1930 to gain another billion. However, the third billion of living residents accumulated in thirty years: 1930 to 1960. At the present rate of growth, the year 2030 will see 14 billion living humans.

The President's Committee recommends family planning for the entire world as the only realistic solution. It is probable that, even if the educational work is started now and is moved along at the maximal rate, most of the world's people will be starving in 1985. One reason for this is that the most prolific nations are also the poorest and least educated and will be the least apt to adopt birth control measures.

Another peculiar circumstance which will slow up population control is that, in areas of limited food supply and poor nutrition, the birth rate is said to remain high because of the high infant mortality and the great desire of parents to rear large families to adulthood. Improvement of infant nutrition in such areas is necessary before family planning will be accepted. The world now has such a short food supply that improvement of infant nutrition becomes a most difficult task.

As Dr. Lieberman concludes: "The world will certainly muddle through somehow without total catastrophe. That much faith we all must have, if only to retain our sanity. Our readers surely understand that had the two percent annual rate of increase started in the time of Christ, there would be 20,000,000 persons alive today for every single person drawing breath this very moment. As this is unthinkable, the

time to act is now. Nothing has more urgent priority."

1. *Medical Proceedings*, Vol. 13, No. 2, pp. 35-39, 1967.

2. See "The Failure of Population Control," *The Sciences*, Vol. 8, No. 2, pp. 14-17, February, 1968.

Noncommercial Aspects Of Medical Advertising

With our present cynicism about Madison Avenue and all its works, many of us see medical advertising as simply a hard sell to lure money from unsuspecting patients. Actually it is more than that. The company which makes the product advertised (whether a drug or an appliance) has involved itself in planning, research, and preparation. It has to know the product, know what the physician wants, and, above all, know what will help the patient. The advertiser needs skilled advisers with respect to the artistry of the display. The company is bound by a burgeoning book of rules and regulations about the honesty of his claims, the effectiveness of his product, and the possible contraindications and side-effects. He has to pass the critical screening imposed by the officials of the sponsoring society. The Federal Trade Commission and the Food and Drug Administration keep a pair of eagle eyes on his advertising copy.

Critics sometimes make fun of doctors who learn about medical progress through advertising or through the information furnished by manufacturers' service representatives (to you, known as "detail men"). Actually, it is impossible for any physician to keep in touch with everything in his field, and the advertisers have developed considerable skill in extracting the essence of research studies. Naturally, they focus on results that support their own claims. But most researchers do that anyway, and the doctor is presumably sophisticated enough to weigh claims with some objectivity and reservation. No reputable manufacturer is going to risk his reputation by publishing false claims — and non-reputable ones don't get into the advertising sections of society-sponsored medical journals. A tour through the advertising pages of this, or any similar journal, is like a tour through the exhibits at a scientific convention. You are expected to read the copy with judgment and discrimination, just as you survey scientific exhibits. The advertising pages do not represent instant education. To that, there are no short cuts. But they are not simply a collection of extravagant puffs, either. They are a showcase of solid, usable, screened and well-displayed information.—*The Journal of the Medical Society of New Jersey* **64:547, October, 1967. Reprinted with permission.**

Editorial Notes...

Perchlorethylene has increased in usage as a dry-cleaning agent for more than 25 years and is now the principal agent. It is non-flammable and non-explosive, it is stable under normal conditions of use, and when used properly, presents no unusual health hazards. However, it is such an excellent solvent that it removes essential oils from the skin and prolonged contact must be avoided. It is also dangerous when swallowed and may injure the eye if splashed into it. Inhalation of the vapor should be avoided. The excellent safety record of perchlorethylene may be attributed largely to the educational and safety campaign conducted by the Laundry and Cleaners Allied Trades Association. Pamphlets, folders, stickers, decals and posters are issued widely to remind workers of the precautions that are necessary and to acquaint the customers of coin-operated cleaning machines with the proper handling of garments fresh from the machines.

Pfizer has started a series of workshops designed to instruct medical technologists on the importance of quality control procedures in hematology. Their Pfizer Diagnostics Department will conduct about 40 such workshops during 1968. This will be in addition to their some 100 workshops each year on blood banking technics and blood grouping. A newly published manual entitled "Manual on Quality Control in Hematology" is available at the meetings.

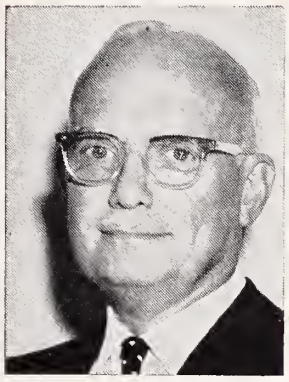
Physiological incompatabilities of drugs added to standard intravenous solutions were discussed at a recent "Seminar on Parenteral Fluids" sponsored by McGaw Laboratories, Evanston, Illinois. Dr. Jon T. Williams pointed out that physical incompatabilities could usually be detected as the solutions were mixed, and that chemical incompatabilities could be calculated beforehand, but that incompatabilities due to changes in pH, ionic complexation or reactions with protein structures could only be avoided by the utilization of complete knowledge of the actions of each drug in the body. He estimated that the number of incompatable drug combinations prescribed each year is well over four million.

The FDA has ruled that the original maker of chloramphenicol will have exclusive rights for its manufacture until rival makers can prove their products are equally effective. Parke Davis produced the drug under the brand name, Chloromycetin, for many years. When the patent expired, six other firms began producing chloramphenicol, all chemically equivalent, and all up to existing legal safety standards, but with considerable differences when compared with Chloromycetin in regard to solubility, blood levels and excretion rates. ◄

President's Page

It has been said that the volume of all the world's scientific knowledge from the beginning of recorded history until 1940 has been equaled in the 28 years from 1940 to the present time. Furthermore it is estimated that the same amount of additional knowledge will be accumulated in the next ten years. Recently I heard it stated that the half life of medical knowledge is now five years. These two statements serve to illustrate the unbelievable rapidity with which new scientific information is becoming available.

Unfortunately when it comes to the question of socio-economics, or to phrase it differently, the application of our knowledge to the service of mankind, progress has sometimes been agonizingly slow. There have appeared on the horizon, however, bright spots which indicate that future progress in this field will make rapid strides toward fulfilling unmet needs. It is my firm belief that the medical profession must be in the vanguard of this movement. Never before have we had greater opportunities than we *now* have to be the leaders in the formulation and carrying to fruition of plans to deliver to all citizens the full benefits of the best in medical care *within the framework of our traditional system of free enterprise*. A Utopian concept? Perhaps so, yet I happen to believe that no fair minded doctor will fail to agree that there are numerous problems which clamor for solutions — for example shortage and maldistribution of medical and paramedical personnel, inadequate hospital facilities, emergency room service, air and water pollution, highway safety — just to name a few.



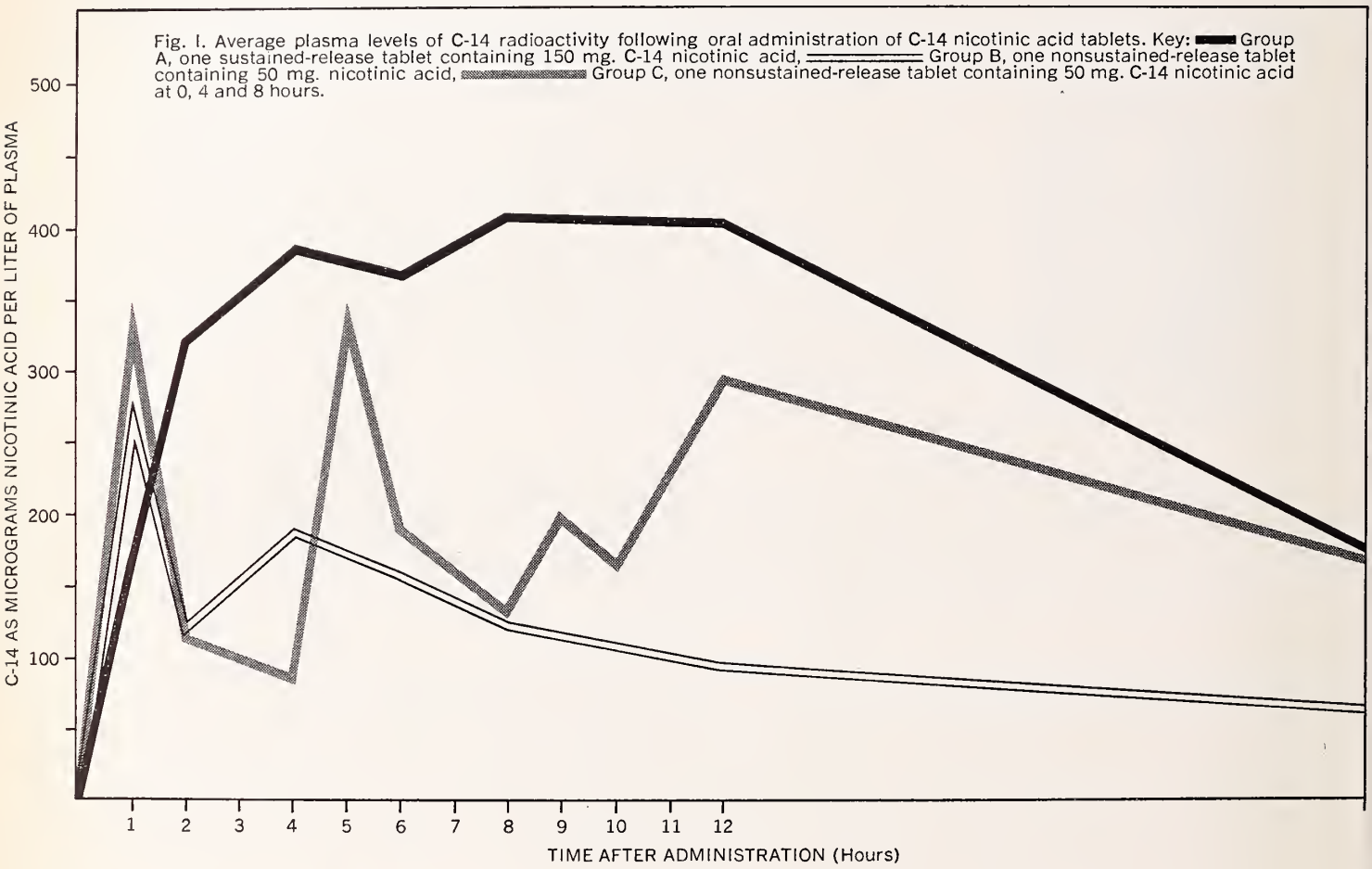
In my opinion the passage of PL 89-749 and its amendments could well be a direct result of the activities of organized medicine against the socialization of our profession and our country and that we could resolve our problems locally. The provisions of the laws mentioned include a most important concept, namely that all comprehensive health plans *must* be initiated at the local or county level, thus placing the authority and the responsibility for this planning at the grass roots.

After lengthy study and detailed consideration of all aspects of the situation, the officers of your association arranged a seminar which was held in Indianapolis on March 30th and March 31st. The officers of all of our component county societies were urged to be in attendance. After this training course it will be the responsibility of these county officers to present information to their local societies for implementation. We must now proceed to cooperate with all other agencies, nurses, dentists, veterinarians, hospitals, voluntary health agencies, etc., each of whom has special expertise in a specific field to develop and implement health plans which hopefully will solve the problems of our own local communities.

The die is cast. In the words of Dr. C. T. Hardwick, Michigan State Medical Society consulting economist, "Will the physician respond unwillingly, as a follower, to the socio-economic forces affecting his practice, or will he be a leader in determining his roll in a changing society?"

G. O. Larson M.D.

Sustained circulatory, respirator
and cerebral stimulation for th



(fewer absent doses by absent-minded patients)

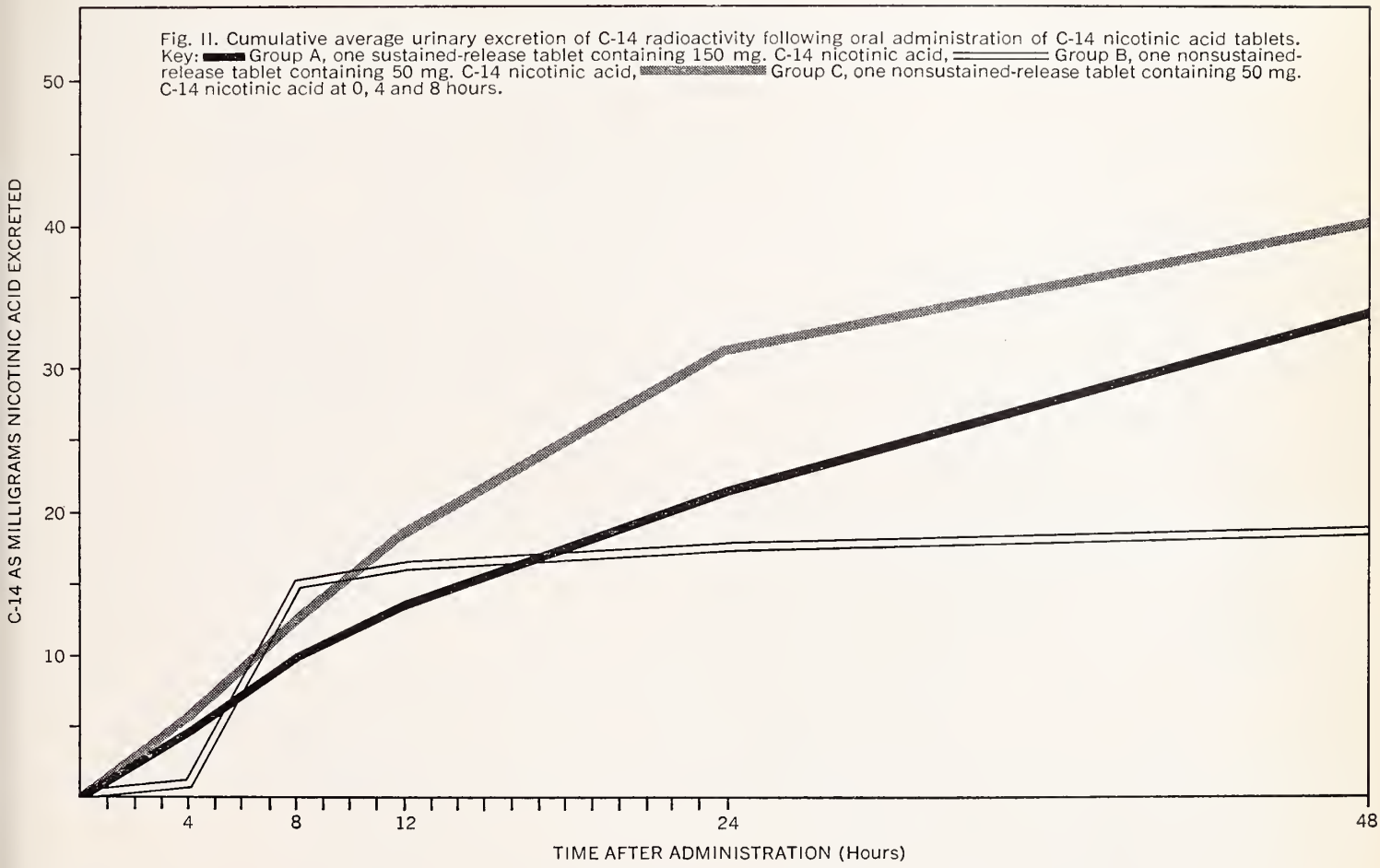
Human volunteer subjects were administered Geroniazol TT tablets with the nicotinic acid component made radioactive with C-14. Plasma and urine samples were analyzed. (See Figures I and II) The radioactive tracer study substantiated the previous clinical evidence that the release of nicotinic acid from the Geroniazol TT tablet produced a gradual rise in plasma levels to a plateau for a total of 12 hours and more.

Such proven sustained activity makes the management of geriatric patients much easier by minimizing the possibility of neglected doses through absent-mindedness or senile confusion. Therapy *can* be continuous on a daily dose of only one Geroniazol TT tablet every 12 hours.

The gradual release of nicotinic acid in Geroniazol TT will provide the well-known peripheral vasodilatation needed in patients with deficient circulation and with a minimum amount (if any) of "flushing." Also, cerebrovascular circulation is complemented by pentylenetetrazol, long-established as a cerebral and respiratory stimulant.

Geroniazol TT improves the typical, unfortunate, signs of senile confusion. Patients become more alert,

ged and debilitated



less confused and moody. Personal care, memory, emotional stability, social attention improve. Fatigue, apathy and irritability are reduced.

A prescription for 100 tablets of Geroniazol TT will permit your patients to enjoy the benefits of time-prolonged nicotinic acid/pentylenetetrazol therapy, at an economical price. Dosage is only one tablet every 12 hours.

Contraindications: There are no known contraindications.

Precautions: Exercise caution when treating patients with a low convulsive threshold.

Side Effects: Side effects are rarely encountered, however due to the vasodilatation effect of nicotinic acid, transitory mild nausea, flushing, tingling and pruritus are possible.

Dosage: One tablet every 12 hours.

Supplied: Prescribe bottles of 100 tablets, to take advantage of recent price reduction.

References: 1. Report by Nuclear Science & Engineering Corp., Pittsburgh, Pa., in files of Philips Roxane Laboratories. 2. Connolly, R.: W. Virginia Med. J. *56*:263 (Aug.) 1960. 3. Curran, T. R., and Phelps, D. K.: Am. Pract. & Digest Treat. *11*:617 (July) 1960.

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nicotinic acid 150 mg., pentylenetetrazol 300 mg.
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The Woman's Auxiliary

REPORTS TO ISMA

This issue completes my reports to you. The past 12 months have simply "flown." I am sure every state auxiliary president has said to herself at least one time—"If I could only begin again—but this time with the knowledge I have gained during this past year." Some of the nicest experiences I have had came through my visits to the county auxiliaries. Driving through the beautiful countryside, visiting cities and smaller towns, the reception was always the same—friendly. There are 13 more visits for me to make before my term expires, most of these in the month of March. I will also have the privilege of attending the Indiana Public Health Association— Partners for Health Interagency meeting March 13th.

The plans for our April House of Delegates are being formalized. Dr. Larson, your president, will attend "A Bloomin Love-in," as our guest. This slightly psychedelic name is the theme for our Wednesday night House of Delegates banquet.

It has been a good year. I have enjoyed reporting to you. For the next 12 issues, Mrs. S. Bruce Kephart (Betty), Wells County, will use this page. I know you will enjoy her articles.

Roberta P. Deever

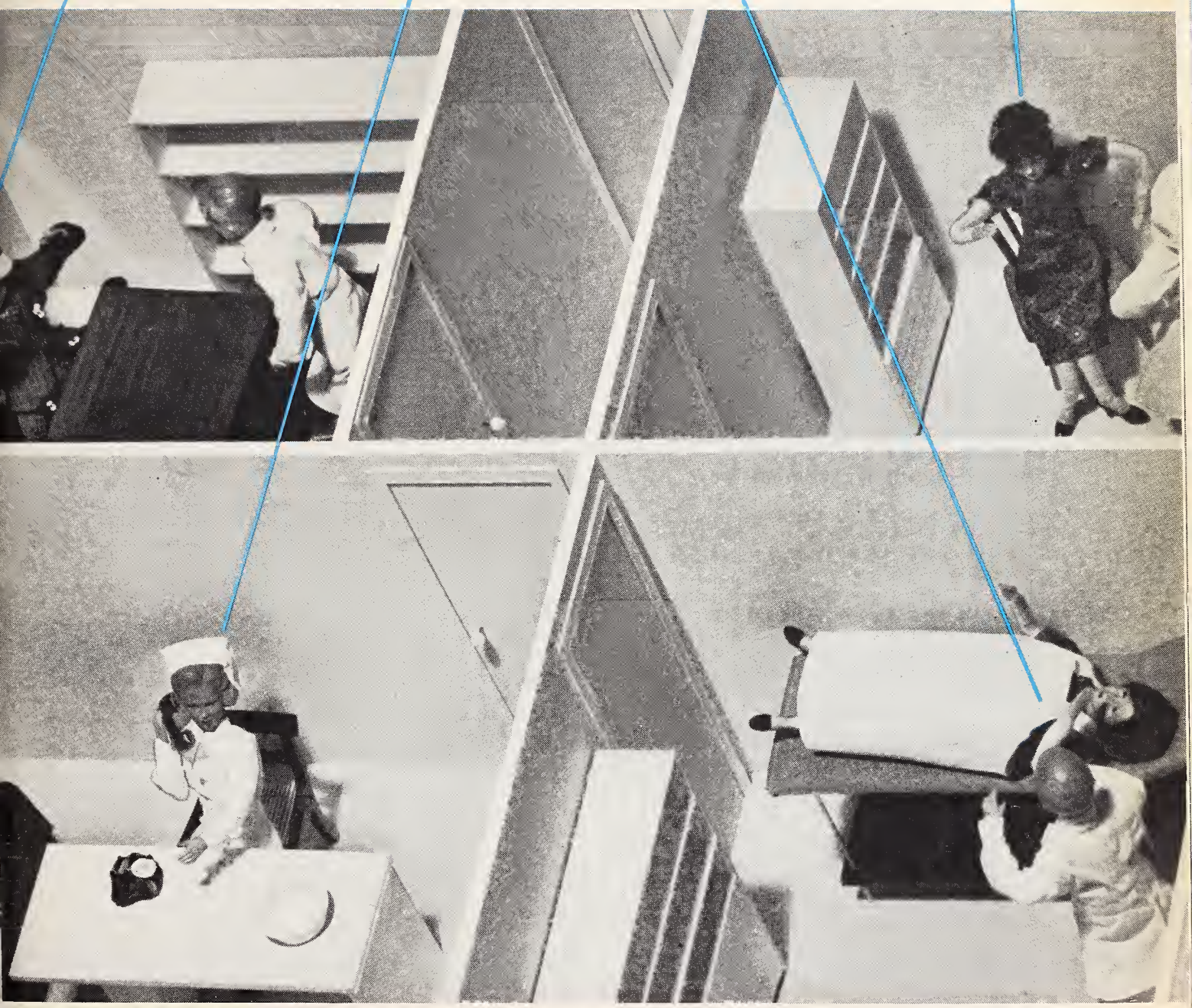
When the emotionally impaired patient pays an office call...

She asks for your help, but just can't seem to follow through on your advice.

When not at your office, she's constantly on the phone: can't sleep, headache, G.I. upset.

She often seeks a physical explanation for her distressing emotional state.

She's excessively apprehensive; demands much more of your nurse's attention.



In moderate to severe anxiety...

- Mellaril helps control the most frequent symptoms: marked tension, agitation, apprehension, restlessness, hypermotility
- Mellaril often alleviates anxiety-induced somatic complaints
- Mellaril frequently helps strengthen emotional resources
- Mellaril helps the patient maintain realistic contact with environment, closer harmony with family

Contraindications: Severely depressed or comatose states from any cause, and in association with or following MAO inhibitors; severe hypertensive or hypotensive heart disease.

Precautions: Hypersensitivity reactions (e.g., leukopenia, agranulocytosis) and convulsive seizures are infrequent. Pigmentary retinopathy has been observed where doses in excess of those recommended were used for long periods of time. May potentiate central nervous system depressants, atropine, and phosphorus insecticides. Where complete mental alertness is required, administer the drug cautiously and increase dosage gradually. In addition, orthostatic hypotension (especially in female patients) has been observed. Epinephrine should be avoided in treatment of drug-induced hypotension.

Side Effects: Pseudoparkinsonism and other extrapyramidal disorders are infrequent; drowsiness, especially in high doses early in treatment, may occur; nocturnal confusion, dryness of the mouth, nasal stuffiness, headache, peripheral edema, lactation, galactorrhea, and inhibition of ejaculation are noted on occasion; photosensitivity and other allergic skin reactions may occur but are extremely rare.

for moderate to severe anxiety

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now . . . specific therapy for night leg cramps

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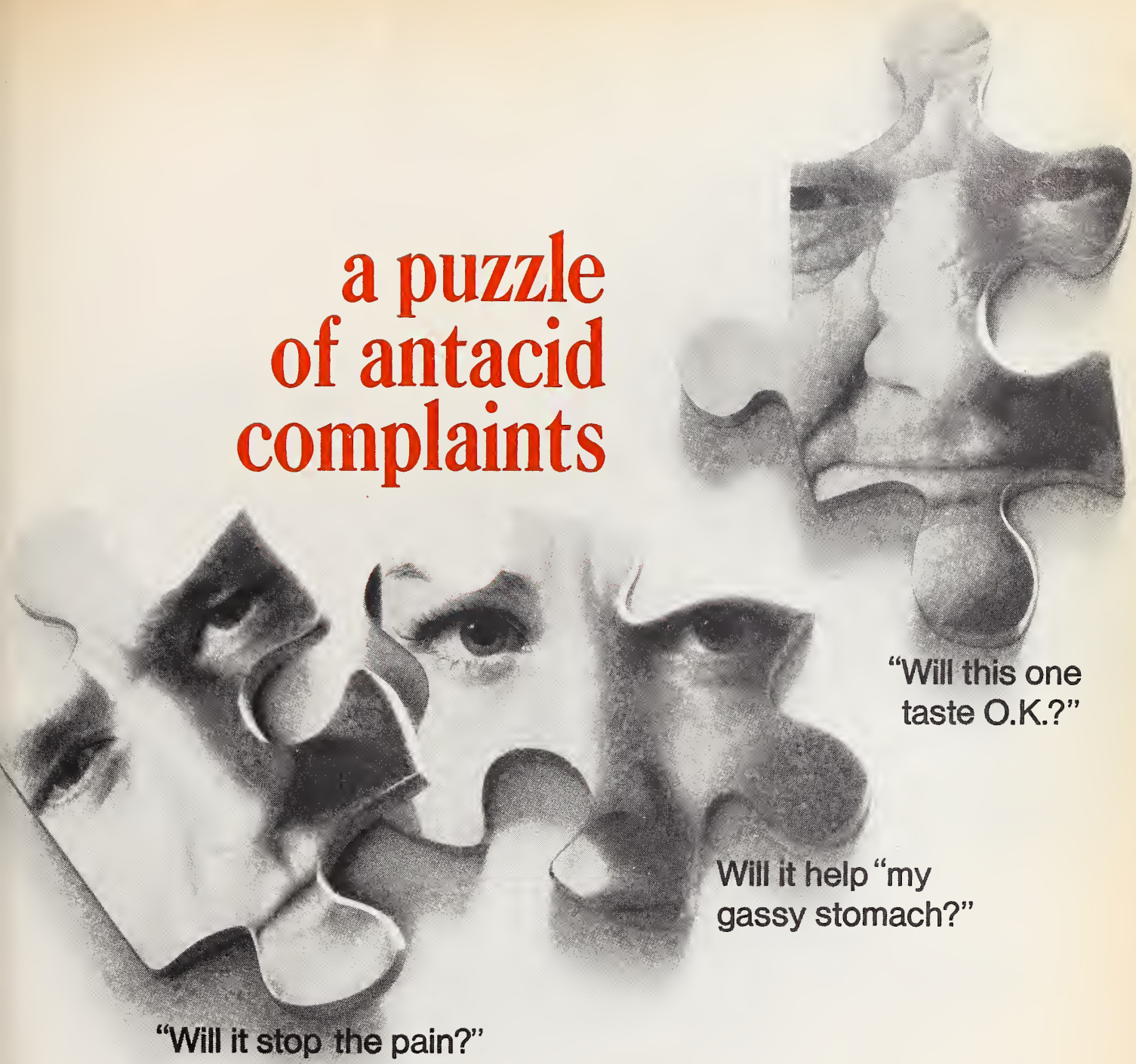
Prescribing Information: Composition: Each white, beveled, compressed tablet contains: Quinine Sulfate 260 mg. and Aminophylline 195 mg. **Contraindication:** QUINAMM is contraindicated in pregnancy because of its quinine content. **Precautions:** Aminophylline may produce intestinal cramps in some instances, and quinine may produce symptoms of cinchonism, such as tinnitus, dizziness, and gastrointestinal disturbance. Discontinue use if ringing in the ears, deafness, skin rash, or visual disturbances occur. **Dosage:** One tablet upon retiring. Where necessary, dosage may be increased to one tablet following the evening meal and one tablet upon retiring. **Supplied:** Bottles of 100 and 500 tablets.
References: 1. Shuman, C.: Am. J. Med. Sci., 225:54, 1953. 2. Perchuk, E., et al.: Angiology, 12:102, 1961. 3. Rawls, W., et al.: Med. Times, 87:818, 1959. 6/67 Q-706A

a puzzle of antacid complaints



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aluminum and magnesium hydroxide *plus* simethicone

a solution to peptic ulcer distress

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Concomitant relief of G.I. gas distress—
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Prolonged acceptance confirmed—
in 87.5% of 104 patients after a total of 20,459 documented days of therapy.[2]

Composition: Each Mylanta chewable tablet or teaspoonful (5 ml.) contains: magnesium hydroxide, 200 mg.; aluminum hydroxide, dried gel, 200 mg.; simethicone, 20 mg. Dosage: One or two tablets (well chewed or allowed to dissolve in the mouth) or one or two teaspoonfuls to be taken between meals and at bedtime.

References: 1. Hoon, J. R.: Arch. Surg. *93*:467 (Sept.) 1966.
2. Danhof, I. E., Personal communication.

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NTz is more than a simple vasoconstrictor. It contains

Neo-Synephrine® (brand of phenylephrine) HCl 0.5 per cent, the major component, virtually synonymous with fast, efficient but gentle nasal vasoconstriction.

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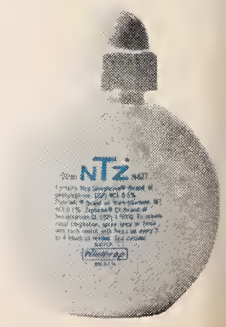


Winthrop Laboratories, New York, N.Y. 10016 Winthrop

Heart — Cancer — Stroke; Indiana Regional Program*

ROBERT B. STONEHILL, M.D.
Indianapolis**

The aim of the Indiana Regional Medical Program is to work within a region developing cooperative efforts of all regional facilities with the purpose of improving the quality of medical care delivery as relates to heart disease, cancer and stroke and other related conditions.

I think it's appropriate to review some of the historical background of Public Law 89-239—"Title IX-Education, Research, Training and Demonstrations in the Fields of Heart Disease, Cancer, Stroke and Related Diseases." In March, 1964, President Johnson appointed a commission to study the problems of heart disease, cancer and stroke. Dr. Michael DeBakey was chairman of this commission. However, there were many other imminent physicians and educators who served as members. After its deliberations, the commission produced a report with 35 major recommendations. In January, 1965, the "Heart Disease, Cancer and Stroke Bill" was introduced into congress. During the intervening months numerous changes were made in the language and concept of the bill; many of these changes were the results of the voice of organized medicine and the bill was enacted into law on the 6th of October, 1965. It's a remarkably simple bill and I believe that it would be revealing to read from the act the purposes, and I quote:

"Sec. 900. The purposes of this title are —

"(a) through grants, to encourage and assist in the establishment of regional cooperative arrangements among medical schools, research institutions, and hospitals for research and training (including continuing education) and for related demonstrations of patient care in the fields of heart disease, cancer, stroke, and related diseases;

"(b) to afford to the medical profession and the medical institutions of the nation, through such cooperative arrangements, the opportunity of making available to their patients the latest advances in the diagnosis and treatment of these diseases; and

"(c) by these means, to improve generally the health manpower and facilities available to the nation, and to accomplish these ends without interfering with the patterns, or the methods of financing, of patient care or professional practice, or with the administration of hospitals, and in cooperation with practicing physicians, medical center officials, hospital administrators, and representatives from appropriate voluntary health agencies."

There were many factors which influenced the development of the Indiana Regional Program planning grant application. It is amazing how far-minded Hoosier individuals had perceived a comparable problem in the delivery of medical care in Indiana and in December, 1964, (predating the Congressional Act) an independent survey report was made to the Governor of this state concerning the development of medical education in Indiana. For many reasons this report proved unsatisfactory to the faculty of the medical center. In May, 1965, Dean Irwin appointed a committee of the medical school faculty to study the future of medical education in Indiana. The Council on Curricular Affairs, chaired by Dr. Deiss, was appointed in September, 1964.

Committees Organized

In other words, Indiana and the Indiana medical school were already dedicated to the requirements of revision of medical education, of undergraduate and graduate and continuing training and the passage of the Public Law 89-239 promised to give impetus to this campaign *if* Indiana would develop its own Regional Medical Program. In September, 1965, Dean Irwin, with his usual foresight, organized another committee to study how the medical school might participate in a Regional Medical Program. Dr. John Hickam, chairman of the Department of Medicine, was chairman of this committee which had representatives from not only the medical school but the Indiana State Medical Association and the Indiana State Board of Health.

They concluded that the state of Indiana constituted a natural region, that the medical center was equipped to participate in the Regional Medical Program, that there was a need to study the regional characteristics for medical manpower and facility requirements, and that there was a unique opportunity for Indiana to develop a program for continuing medical education.

As far as continuing medical education is concerned, there had been some previous experience in that the medical center had offered postgraduate courses at the school in Indianapolis and had sent specialty consultants to numerous local medical groups for consultation and education. They had also embarked on a small but effective preceptorship program with senior medical students, involving capable practicing phy-

* Presented at the 118th annual convention of the Indiana State Medical Association, Indianapolis, Indiana, October 11, 1967.

** Professor, Department of Medicine and Director, Indiana Regional Medical Program for Heart Disease, Cancer and Stroke, Indiana University Medical Center, Indianapolis 46207.

sicians throughout the state who were selected as preceptors by the Commission on Medical Education and Licensure of the Indiana State Medical Association. They also recognized that the Indiana plan should be incorporated in the concepts of the Regional Medical Program.

In January, 1966, at a meeting in Indianapolis, hospital representatives from all over the state and officers of the Indiana State Medical Association met and demonstrated an enthusiasm for these concepts. In February, 1966, the Executive Committee of the Indiana State Medical Association met and endorsed the concept of formulating the Regional Medical Program.

Weekly Medical Grand Rounds

Small scale feasibility studies were carried out in 1966 and early '67. Two-way telephone conferences of the weekly medical grand rounds held at the Indiana University Medical Center were initiated involving Ball Memorial Hospital in Muncie and the Deaconess Hospital in Evansville. In addition, a few medical students were sent on a six week rotation in medicine to the Lutheran Hospital in Fort Wayne, the Davis Clinic in Marion, and the St. Elizabeth Hospital in Lafayette. Both programs showed the desirability and feasibility of expansion.

In May, 1966, the advisory group which was to supervise the Regional Medical Program was formed from nominations from numerous individuals including the president of the Indiana State Medical Association, president of the Indiana Heart Association, president of the Indiana Division of the American Cancer Society and the president of Eli Lilly and Company.

As you will note, the representation on the advisory group is quite broad, involving not only medical and paramedical personnel but a significant citizens representation (Table 1). This broad representation of all interests in the delivery of health care is of paramount importance when it is understood that the advisory group directs and controls the activities of the Regional Medical Program.

ADVISORY GROUP INDIANA REGIONAL MEDICAL PROGRAM

- Medical School
- Indiana State Medical Association
- Indiana State Board of Health
- Voluntary Health Agencies
- Hospital Association
- Medical Education
- Labor
- Dental Association
- Communications
- Nursing
- Insurance
- Association of Medical Clinics
- Citizens Group
- Social Service
- Representatives of State Universities and Notre Dame

TABLE 1

On July 21, 1966, the first meeting of the advisory group was held and officers were elected. Three administrative committees were formed: The Rules and Membership Committee, the Executive Committee and the Planning and Educational Committee. Ad Hoc committees and subcommittees were appointed as task forces to initiate the planning of the specific objectives of the program (Table 2).

Heart Disease Studies

The Coronary Care Unit Committee is developing plans for a study module of the coronary care unit in a community hospital and is in the process of developing a training program for physicians and nurses from community hospitals for the purpose of staffing such units. It is hoped that a wide distribution of coronary care units throughout the community hospitals in the state will result. In addition, the committee is developing a potential for telephonic electrocardiogram transmissions from community hospitals to the medical center for immediate interpretation.

The Regional Characteristics and Medical Manpower and Facility Requirements Committee is surveying the region, especially the border areas of the state, to help definitely determine the flow of medical care so that a logical ultimate decision can be made on the actual boundary of the region. Unless proven otherwise, we are considering state boundaries and the regional boundaries as similar. In addition, they are developing information as to medical and paramedical manpower needs both at present and projected for the future, as well as the facility requirements. Once this study has been completed, a definitive program can be initiated, pinpointed at the deficiencies that do or will exist.

The Pediatric Cardiac Disease and Heart Registry Committee has been very active. Their committee has participation from the Commission on Public Health of the Indiana State Medical Association, the schools of medicine and nursing, and the state crippled children's program, as well as practicing physicians from 14 towns throughout the state. They are developing a consultation service throughout the state, utilizing

INDIANA REGIONAL MEDICAL PROGRAM

—AD HOC COMMITTEES—

- Coronary Care Units
- Regional Characteristics and the Medical Manpower and Facility Requirements
- Pediatric Cardiac Diseases and Heart Registry
- Flanner House Health Screening Program
- Health Hazard Programming

—AD HOC SUBCOMMITTEES—

- Strokes
- Cancer
- Rehabilitation

TABLE 2

local pediatric cardiac clinics. They are planning to enable physicians to take short courses in continuing education in pediatric cardiology at the medical center, and they are also planning the development of a registry for children suffering from rheumatic fever to help insure intensive follow-up and preventive medical treatment.

The Flanner House Health Screening Program Committee is initiating a module in multiphasic screening techniques utilizing the population of one census tract in a low income area of Indianapolis. It is hoped that this population, who usually seek medical attention only for far-advanced diseases, will benefit from the detection of incipient disease which is treatable. This screening will consist of a battery of laboratory tests including a Pap smear, a phonocardiographic scan, an electrocardiogram and a chest x-ray as well as blood and urine tests. It will be conducted by a group of personnel with marginal educational attainments who are locally trained and who will act under the supervision of professional personnel. If deficiencies are noted, the individual will be advised to seek medical attention. He will be able to report to his private physician, to the Marion County General Hospital or a community hospital such as the Methodist Hospital. This is a feasibility study to determine if multiphasic screening will discover early disease. Also it will be important to know whether the individuals notified of abnormalities do seek medical advice. Therefore, upon completion of this pilot study, social service workers will visit the homes of the individuals who were examined to see what action they have taken.

The Health Hazard Program is currently being developed at the Methodist Hospital and has been incorporated into the Regional Medical Program. The practicing physician is alerted to the disease entities that are a potential threat for his patient's sex and age group, based on actuarial statistics, so that in the process of evaluating the patient, a preventive medicine program can be outlined to reduce the patient's hazards to these diseases. These clinico-prospective conferences are proving to be excellent and already utilize two-way telephone connections to several hospitals outside of Indianapolis.

Stroke, Cancer

The chairman of the subcommittee on strokes has been a member of the Cerebral Vascular Disease Committee of the Indiana Heart Association. This committee had already instituted an investigation of the quality of care of cerebral vascular disease in several counties. In Elkhart, an intensive educational program was carried out utilizing workshops concerning all aspects of diagnosis, treatment and rehabilitation of stroke patients. Now the impact of this educational effort is being evaluated to see whether additional programs should be expanded to other communities. The Subcommittee on Strokes has also done a survey of the medical and paramedical resources within the state capable of dealing with CVA's as well as the facilities available.

The cancer subcommittee is giving its attention to a survey throughout the state of the current capabilities in detection and treatment of all types of neoplasms. They eventually hope to set up demonstrations, workshops and tumor boards, etc., and will work closely with the Indiana Division of the American Cancer Society.

Finally, the Committee on Rehabilitation is in the process of being activated and as yet has not had a chance to develop any definitive plans.

Several of the committees have progressed to the point where they are about to request operational grants. These proposals will be submitted as rapidly as possible to the National Institute of Health for financial support. As other committees subsequently progress to the point where they are capable of becoming operational, supplementary operational grant requests will be submitted.

There are now six broad projects of the Regional Medical Program:

Collection and analysis of data on Indiana's future needs for medical manpower and facilities.

Planning for a statewide system of graduate and continuing medical education on heart disease, cancer and stroke.

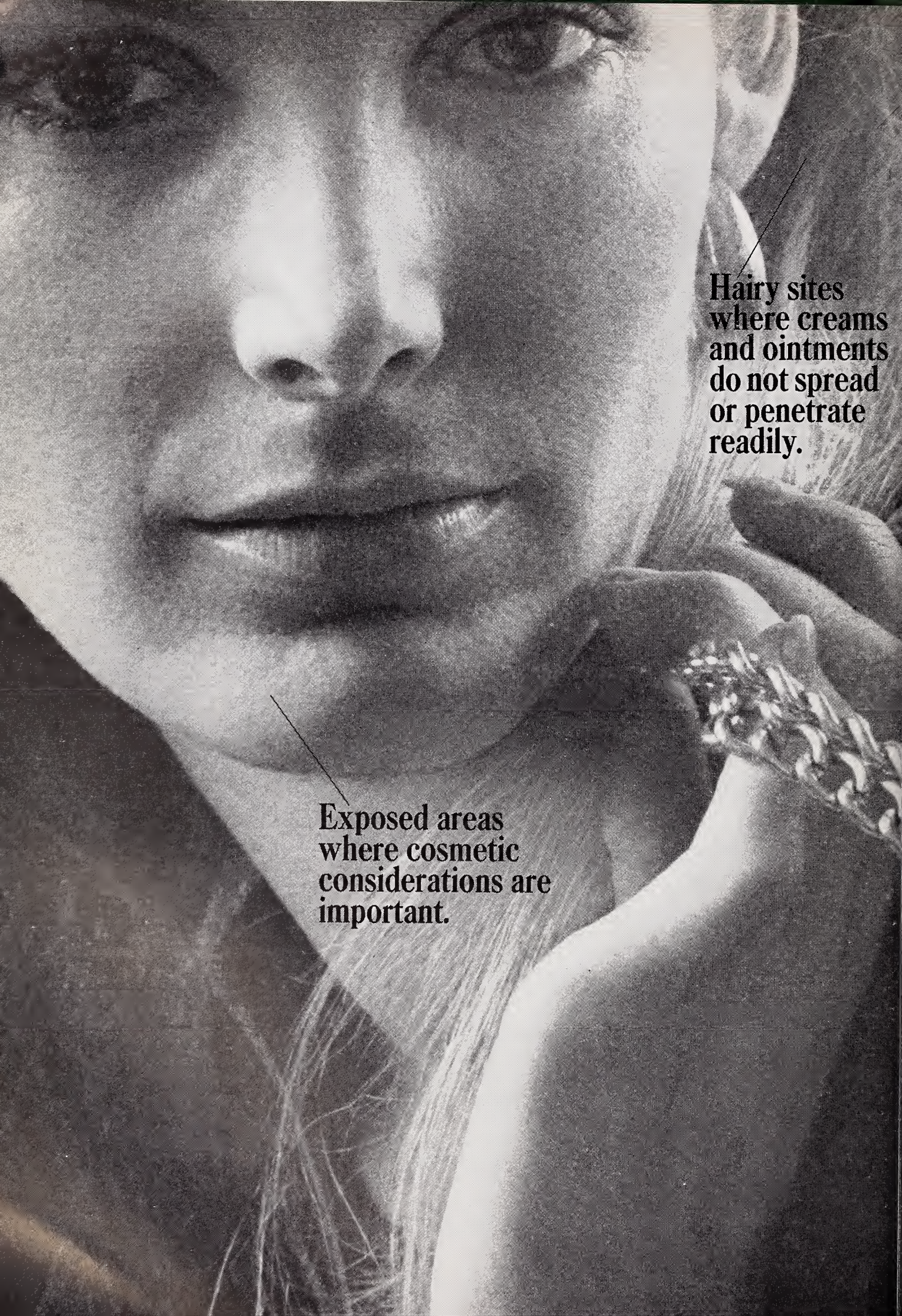
Planning for a network of Coronary Care Units to serve a maximum number of Hoosiers, including those in now isolated communities.

Development of a pediatric-cardiac registry, which will make data instantly available on the extent and nature of heart disease among children in the state.

A feasibility study to encourage physician participation in diagnostic and preventive medicine.

A demonstration project to identify medical problems among people in low income neighborhoods.

In summary I would like to leave these thoughts. While it is being federally financed, this program is designed to be controlled at the regional level through a wide representation among the health delivery and consumer services on the advisory group. Cooperative efforts among all local health delivery organizations are of paramount importance. The program is not designed for autocratic control; it is designed to be the catalyst through which local leadership can upgrade the delivery of medical care through continuing education and improvement of the facilities available. It needs the enthusiastic support of the private, practicing physician who really is the ultimate vehicle for the delivery of this medical care. All of us, both you and I, have a tremendous opportunity. The benefits promise to be amazing. ◄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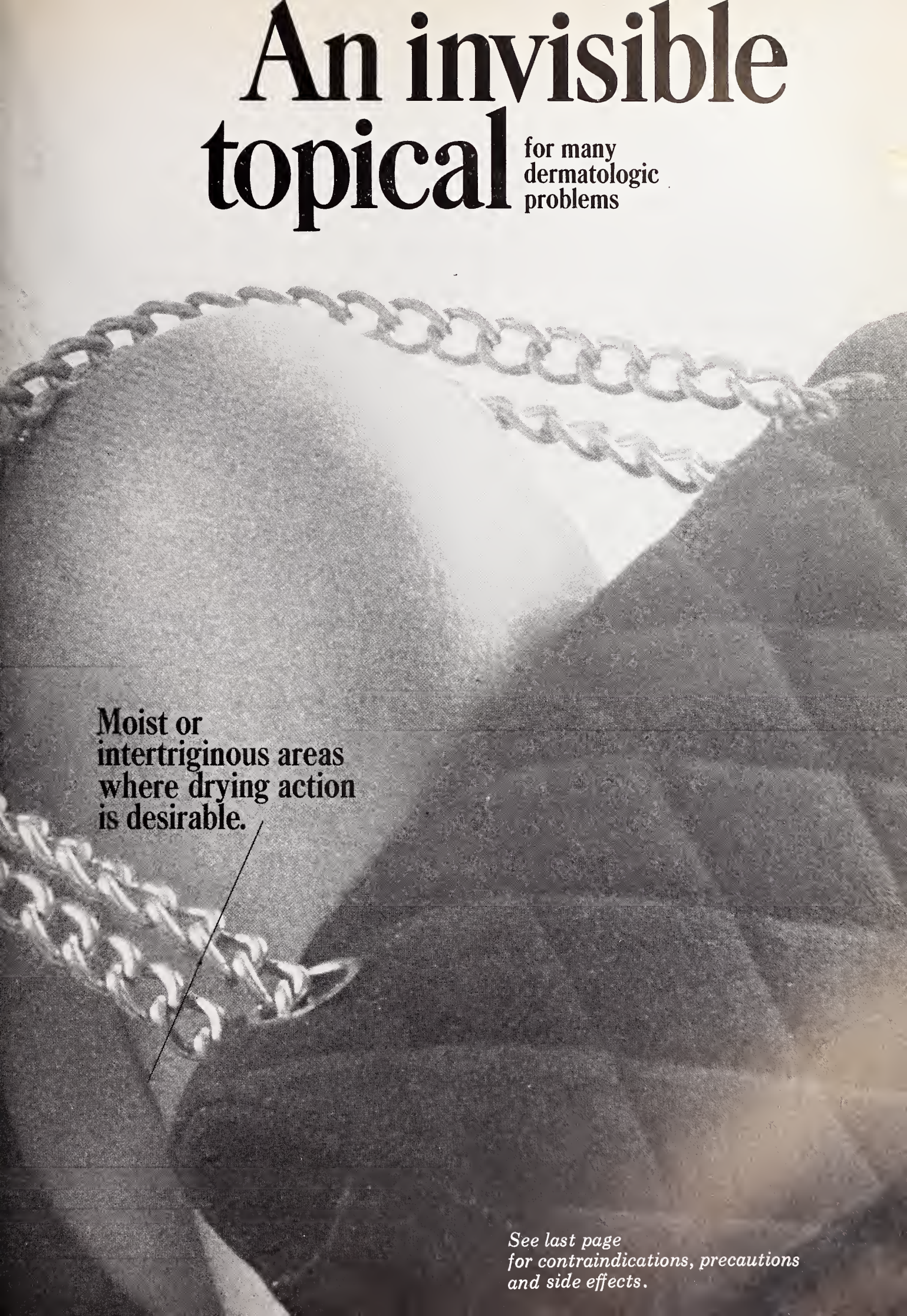
for many dermatologic problems



See last page for contraindications, precautions and side effects.

Structurally unique topical steroid in propylene glycol vehicle produces rapid response in many dermatoses.

Synalar Solution produces rapid antiinflammatory, antipruritic action through its unique topical corticosteroid, fluocinolone acetonide. The propylene glycol vehicle provides additional benefits for therapy at problem sites where it is difficult to achieve contact between the lesion and medication—or where creams or ointments may make the lesions worse. Synalar Solution has proved particularly valuable in the symptomatic treatment of seborrheic dermatitis of the scalp, nasolabial folds, eyebrows, ears, and in flexural folds such as the axillae, inframammary, umbilical and anocrural areas. It has also been reported to achieve excellent results in the adjunctive management of atopic dermatitis, contact dermatitis, neurodermatitis, nummular eczema, psoriasis, and sweat retention syndromes in these problem sites.

Penetrates the hairy sites.

In many areas of the body, hair gets in the way of treating the underlying dermatitis. The propylene glycol vehicle of Synalar Solution permits penetration and dispersion at sites where creams and ointments do not readily penetrate. May be applied without matting of hair.

Ideal for moist or intertriginous areas.

Propylene glycol is strongly hygroscopic and is especially useful where sweat retention is a problem. Its low surface tension permits easy spreadability in difficult-to-treat body areas. A number of studies have also shown that propylene glycol has inherent antimicrobial activity.

Cosmetically acceptable for exposed areas.

The propylene glycol vehicle of Synalar Solution possesses many useful cosmetic properties. Clear and greaseless, it is not sticky or messy, will not stain clothing or skin. On exposed areas of the body where cosmetic appeal is important, Synalar Solution shows nothing but results.

Economical—a little goes a long way.

Because of the properties of propylene glycol and the milligram potency of fluocinolone acetonide, a small quantity of Synalar Solution goes a long way. Also, the prescription price of a 20 cc. plastic squeeze bottle of Synalar Solution is surprisingly low. Thus, your patients obtain economy with the proved efficacy of a potent, truly advanced topical corticosteroid.

Contraindications: Tuberculous, fungal, and most viral lesions of the skin (including herpes simplex, vaccinia, and varicella). Not for ophthalmic use. Contraindicated in individuals with a history of hypersensitivity to any of the components.

Precautions: In some patients with dry lesions, the solution may increase dryness, scaling, or itching. Application to denuded or fissured areas, such as genital or perianal sites, may produce a burning or stinging sensation. If this persists and dermatitis does not improve, discontinue medication. Although propylene glycol has antiseptic activity, there should be careful initial evaluation and follow-up of infected sites. Incomplete response or exacerbation of lesions may be due to true infection, which requires susceptibility testing and appropriate therapy. On the other hand, saprophytic or low grade infections may clear spontaneously under the influence of Synalar Solution alone. Where severe local infection or systemic infection exists, the use of systemic antibiotics should be considered, based on susceptibility testing. While topical steroids have not been reported to have adverse effect on pregnancy, the safety of their use on pregnant females has not absolutely been established. Therefore, they should not be used extensively on pregnant patients, in large amounts, or for prolonged periods of time.

Side Effects: Side effects are not encountered ordinarily with topically applied corticosteroids. As with all drugs, however, a few patients may react unfavorably to Synalar under certain conditions.

Availability: Synalar (fluocinolone acetonide) Solution 0.01% in a propylene glycol vehicle with citric acid as preservative. 20 and 60 cc. plastic squeeze bottles. *Also available:* Synalar (fluocinolone acetonide) Cream 0.025% —5, 15 and 60 Gm. tubes and 425 Gm. jars. Cream 0.01%—15, 45 and 60 Gm. tubes and 120 Gm. jars. Ointment 0.025%—15 and 60 Gm. tubes. Neo-Synalar® (neomycin sulfate 0.5% [0.35% neomycin base], fluocinolone acetonide 0.025%) Cream—5, 15 and 60 Gm. tubes.

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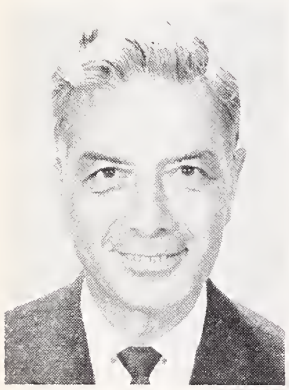
SYNTEX
LABORATORIES INC., PALO ALTO, CALIF.

Synalar®
(fluocinolone acetonide)
Solution
0.01%

An invisible topical

News from Indiana University School of Medicine

Dr. Harris B Shumacker, chairman of the Department of Surgery of the Indiana University School of Medicine since 1948, has announced he will relinquish his administrative duties as of June 30, but that he will remain with the school as professor of surgery.



One of the leading men in his field in the United States, Dr. Shumacker pointed out that although it will be several years before his retirement as the department head would be mandatory, it is his feeling that a change should be made now when the school of medicine and the department of surgery face a period of great expansion so that the new chairman can fill the positions and make the decisions rather than inherit them from his predecessor. Dr. Shumacker emphasized that he intends to continue as a full-time member of the department.

Both Dr. Elvis J. Stahr, president of the university, and Dr. Glenn W. Irwin Jr., dean of the school of medicine, expressed surprise and regret at the decision, but both accepted it with understanding.

"The school of medicine has been fortunate to have had the leadership of Dr. Shumacker, a nationally distinguished surgeon, as chairman of the department of surgery for the past 20 years," Dr. Irwin said. "It is with regret, but complete understanding, that we accept his decision to relinquish his administrative leadership. The department of surgery and the school of medicine are most gratified that Dr. Shumacker has chosen to stay at Indiana University. Our faculty and students look forward to his new academic achievements in teaching and research as a result of relief of major administrative duties."

Extremely active and well-known among national and international professional organizations for many years, Dr. Shumacker has brought recognition to the department of surgery at the I.U. Medical Center from many quarters. He introduced open heart surgery to the I.U. hospitals in 1955, and now, with 150 to 200 such operations a year, it is being performed on a routine basis.

Other fields of surgery, some nearly as dramatic as the open heart operations, have been and are being explored by Dr. Shumacker's team. Indiana University is among the leaders in the treatment of kidney disease, and in effecting kidney transplants when the person's own diseased organ cannot be made to function. Important instrumentation for measurement of various conditions, blood pumps to bypass the heart during operations, renal pumps or dialysis machines to bypass and substitute for diseased kidneys, have been developed at the I.U. Medical Center to assist the surgical group.

The largest popular headline, the story that most captured the layman's interest sparked by Dr. Shumacker in recent years was the announcement a year and a half ago that a group of scientists under his direction were working on a totally implantable artificial heart. This research continues with close engineering-medical collaboration, and since that time the heart machine has been redesigned. The work has not progressed to the point where clinical trial is felt justified. ◄

I.U. School of Medicine Postgraduate Courses
(Division of Postgraduate Medical Education)

DATE	COURSE TITLE	LOCATION	COURSE DIRECTOR	A.A.G.P.* HOURS
April 24	Emotional Problems in Family Practice	Dunn Memorial Hospital, Bedford	Donald Kerr, M.D.	5
May 15	Orthopaedics for the General Practitioner	I.U.M.C.	James Wray, M.D.	8

* Prescribed hours credit by the American Academy of General Practice

Dear Doctor:

Wouldn't you like your patients to learn more about the contributions made by the world of medicine to their welfare? So that they can better appreciate the efforts of the health team to keep them in good health?

To tell the stories of medical and pharmaceutical advances to people throughout the country, the Pharmaceutical Manufacturers Association is sponsoring a unique "magazine within a magazine." It is called *Medicines and your family's health* and the first issue appears in the November *Reader's Digest.*

We would like to send you 50 free reprints of *Medicines and your family's health* for use in your reception room. Your patients will find the articles in this issue factual, educational and of immediate personal interest.

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ISMA Preceptor Program Described

SINCE the advent of the current ISMA preceptorship program, many applicants have written to inquire about the purposes and mechanics of the program. How does the program work, what is expected of the preceptor, what is the aim of the program? These are a few of the questions that are asked.

We. on the Commission on Medical Education, feel that there are some things a student cannot be taught in medical school. Medical schools are excellent places to study the science of medicine, but to a lesser extent. the art of medicine.

The preceptorship program is meant to offer the medical student the opportunity to spend six weeks with a physician actively engaged in the private practice of medicine, and preferably the family practice of medicine. During this period, the student will have time to get to know his preceptor as a person, as well as a physician. He may be exposed to the subtleties of reassuring the expectant mother. of quieting the frightened child. of comforting the incurable.

And what of the business problems that go with conducting a practice? How do you run an efficient office? Very few medical students are natural born business men; if they were. they wouldn't be in medical school. How do you get the right kind of office help? How do you use them efficiently? What duties can be delegated to the office nurse? How do you keep accounts from becoming delinquent? How do you handle delinquent accounts? What have you learned about keeping the appointments running on schedule? What kind of records are important to keep on your patient?

There are clinics and outpatient services at the medical school to be sure. and the medical student is well versed in the management of leukemia, diabetes and tuberculosis. But what of the patients with bee stings, nail wounds of the foot, chronic headache, heartburn, chronic backache, dog bites, and a hundred and one things students don't see in the outpatient department?

What does the community expect of the physician? How does the busy doctor work in the Rotary, Kiwanis, Lions, church activities, Little League, P.T.A., United Fund drive, school activities, etc.? What kind of family life does the busy doctor have?

There are so many aspects of the practice of medicine that can be learned from a preceptor. They cannot be learned in medical school.

Currently, selected senior medical students are serving six-week periods, in lieu of time they would ordinarily spend on outpatient services at the medical center, with volunteer preceptors throughout the state. These preceptors are men engaged in the family practice of medicine. These students become the preceptor's shadow during this six-week period, sharing all his professional service, and family activities. It is not the primary purpose of the program to provide didactic teaching of the same type used in medical school, rather it is to provide an exposure to the family practice of medicine, to the everyday problems which confront the family physician. It is to broaden the medical school curriculum, to expose the student to an aspect of medical practice which it is not possible to present in the medical school environment.

What is required of a preceptor? That he be of good character, that he be interested in sharing his experience with a beginner; and that he be enthusiastic. What about living conditions for the student? If possible, the best solution would be for the student to live in the preceptor's home. Room, board, and laundry should be provided for the student. If the student is living with his preceptor, he goes on house calls, he hears the phone ring at night, he lives a physician's life for six weeks.

In no case should the student act as a replacement for his preceptor—nor should he expect to do work his preceptor would ordinarily do. The student is an observer. To be sure, there is no objection to his listening to a chest with his preceptor, checking a pelvis, or going through any other examination with his preceptor; this is encouraged, but such examinations should be a joint activity, or at least closely supervised.

It is a real sacrifice for any doctor to act as a preceptor, but students and physicians alike who have already participated in the program, feel that this has been an invaluable experience for them.

We do not feel that the program should be diluted by farming the student out to several doctors in a community for a week at a time, or two weeks at a time. We feel that the personal relationship established between the doctor and the student during this six-week period is an important part of the program.

It is the hope of the commission, the Indiana State Medical Association, and the Indiana University School of Medicine that through this preceptorship program, today's medical student may be better prepared to enter the private practice of medicine, and to deal effectively with human illness.

It is the hope of the commission, too, that those members who are interested will fill out the application printed opposite and that those members who have already filed applications will reapply.

Applications should be sent to:
William A. Ringer, M.D.,
% Indiana State Medical Ass'n.,
3935 N. Meridian St.,
Indianapolis, Indiana 46208.

Commission on Medical Education and Licensure, Indiana State Medical Association.

Preceptor Screening Committee
Commission on Medical Education and Licensure
Indiana State Medical Association
3935 North Meridian Street
Indianapolis, Indiana

1. Name .....
2. Address .....
3. County Medical Society .....
   A. Population
      City .....
      County .....
4. Medical School and Date of Graduation .....
5. Number of Years in Present Community .....
6. Type of Practice .....
   A. Solo .....
   B. Partnership .....
   C. Group .....
7. Hospital Affiliation .....
8. Church Affiliation .....
9. Community Activities .....
   .....
10. Housing Facilities
   Single student .....
   Married student .....

Comments:

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George T. Harding, M.D.
Medical Director

James L. Hagle
Administrator

Blue Shield Operational Data: 1946-1967

(One of a series prepared by Blue Shield)

A review of the following table of Blue Shield operational data on an annual basis since 1946 shows the details of our growth and development through the years. In addition to the totals included in this table, during 1967 Blue Shield processed for payment 443,591 Medicare Part B bills totaling $19,195,813.

	Enrollment At Year End	Number of Claims*	Payment For Doctor's Services*	Operating Percent
1946	80,568	540	$ 32,021	30.9%
1947	141,293	5,780	421,479	16.4
1948	232,103	14,191	872,986	15.4
1949	364,550	27,068	1,430,854	14.0
1950	539,712	47,613	2,418,466	12.8
1951	729,897	78,752	3,791,691	13.7
1952	871,726	109,897	5,041,642	11.6
1953	989,344	144,016	6,064,876	12.3
1954	1,059,837	171,013	6,681,876	12.5
1955	1,267,994	209,510	7,945,040	11.1
1956	1,355,097	291,080	11,148,990	9.9
1957	1,396,368	368,470	13,753,780	9.7
1958	1,306,181	390,975	13,730,466	9.6
1959	1,363,882	427,149	14,477,628	9.8
1960	1,391,624	463,057	15,752,605	9.0
1961	1,431,251	514,991	17,957,496	8.3
1962	1,469,670	587,213	20,721,436	7.2
1963	1,491,827	662,710	23,319,855	6.8
1964	1,520,148	727,020	25,846,611	6.6
1965	1,554,470	764,683	26,939,647	6.2
1966	1,654,504	768,159	26,675,891	6.4
1967	1,766,382	987,136	31,569,568	6.8

GRAND TOTALS

September, 1946, through December, 1967

Total payments for doctor's services since September, 1946	$276,551,866
Add outstanding	$ 10,073,776
Total claims expense through December 31, 1967	$286,625,642
Earned income	$329,119,581
Reserve — December 31, 1967	$ 14,487,220
Total claims paid for members since September, 1946	7,761,023

* Major medical not included.

W. C. Huddlestone
Public Relations Division ◄

WANTED: Physicians Locations

GENERAL PRACTICE

Carlos Alberto Cespedes, 3195 Western Ave., Park Forest, Ill. 60466

Richard G. Blair, 401 S. 6th Ave., Maywood, Ill. 60153

SPECIALISTS

Martin P. Kaplan, 733 Malabu Dr., Lexington, Ky. 40502—*Allergy*

Kamil Ergin, 181 Park St., Malone, New York 12953—*Anesthesiology*

George J. Gataky, Jr., Henry Ford Hospital, Detroit, Mich. 48202—*Dermatology*

Arthur Ralph Spielvogel, 938 Hillcrest Rd., Ridgewood, New Jersey—*Internal Medicine*

Nicholas D. Wing, 1085 Karen Dr., Akron, Ohio 44313—*Internal Medicine*

Richard Alan Martens, (Capt., MC, USAR) USAH, USAMEDC, Box 99, APO San Francisco, California 96331—*Internal Medicine*

Michael Benjamin Mock, 502 University Park, Rochester, New York 14620—*Internal Medicine*

Mirhan Boldy, 4953 Castana Ave., Apt. 9, Lakewood, Calif. 90712—*Internal Medicine*

L. D. Anagnostopoulos, 10312 S. Corliss Ave., Chicago, Ill. 60628—*Internal Medicine*

William C. Hendricks, Jr., 18916 Sumpter Rd., Cleveland, Ohio 44128—*Neurosurgery*

Enriqueta Cartagena-Mayuga, 835 N. McCullough, San Antonio, Texas 78212—*Obstetrics & Gynecology*

Akil Affan, U.S. 97th General Hospital, Frankfurt 6, M. Germany—*Obstetrics & Gynecology*

Alexandru S. Coman, 428 W. 59th St., New York, New York 10019—*Obstetrics & Gynecology*

William J. Dougherty, 82 Olive Court, Iowa City, Iowa 52240—*Orthopedics*

Ray H. Fenner, Pensacola Naval Hospital, Pensacola, Fla. 32512—*Orthopedics*

Mario B. Rossi, 120 Newmarket Rd., Garden City, New York 11530—*Pathology*

Oscar A. Aparicio, 198 E. Clinton, Apt. A, Columbus, Ohio 43202—*Pathology*

David Haim, 1801 N. Seminary, Galesburg, Ill. 61401—*Psychiatry*

Kyong Suk Chai, 1075 McMillan Ave., Winnipeg 9, Manitoba, Canada— *Radiology*

Abdol-Hossein Collestaneh, 222 N. Lockwood, Chicago, Ill. 60644—*General Surgery*

Charles P. Floyd, 2364 Cresta Dr., Decatur, Ga. 30032—*General Surgery*

Donald Henry Chou, 33rd Field Hospital, Wurzburg, Germany, APO New York 09801—*General Surgery*

Erik P. Birzgalis, 2968 Treen Court, Rancho Cordova, Calif. 95670—*Urology*

Amando L. Baluyut, 32 Kamias Rd., Quezon City, Philippines—*Urology*

Fred H. Beaumont, 600 1st Ave., Council Bluffs, Iowa 51501—*Administrative work, public health work, hospital inspection*

ADDITIONAL LOCATIONS

Cass—WALTON—located directly in center of 9,000 population in the central part of Indiana. Thirteen miles from Kokomo, ten miles from Logansport, both with good hospital facilities. A two-doctor Sears-Roebuck Foundation facility. Principal economics are industry and farming. A prosperous community. For details contact Roger J. Rhodes, Doctor Procurement, Walton, Indiana 46994.

Delaware—MUNCIE—population 80,000 with a metropolitan area of 100,000 population. Office and practice of the late Dr. Robert M. Butterfield, 315 W. Jackson St., is available. Office completely equipped for general practice, including minor surgery, cast applications, electrocardiograms and minor laboratory procedures. Office located adjacent to the downtown business area with a family size apartment available with the office. Contact Mrs. Robert M. Butterfield, 222 Winthrop Rd., Muncie, Indiana 47304. Phone 317 - 282-6270.

Hendricks—BROWNSBURG—population close to 5,000. Located close to Indianapolis—eight minutes from Speedway (Indianapolis) on I-74. Latest equipment and furnishings of the late Dr. L. E. Foltz available. Contact Mrs. Mildred Foltz, Brownsburg 46112. Telephone 852-2557 or 2675.

Tipton—SHARPSVILLE—population 700. Located near Tipton, Indiana where hospital facilities are available. Lions Club interested in finding a physician for the community. Contact David Brumbaugh, R.R. 2, Sharpsville, Indiana 46068.

Wayne—RICHMOND—population approximately 50,000. Modern and thriving city located in the east central part of Indiana. Urgent need of an associate to take over second office. Will consider either an association, a partnership or will sell second office for independent medical practice. General hospital with 345 beds. All major specialists available for referral work. Contact C. G. Clarkson, M.D., 1350 Chester Blvd., Richmond, Indiana 47374. Telephone 966-2581. ◄

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Medicine At Law

DECISIONS AND OPINIONS

Highlights of recent court actions pertaining to health and medicine from *The Citation* prepared by the Law Division of AMA.

Trial Ordered in Dispute on Consent to Surgery—Conflicting evidence on a patient's consent to surgery barred a directed verdict in favor of the hospital, a Florida appellate court ruled. The evidence raised a question of fact for the jury as to whether the patient had given an informed consent to the surgery. The judgment entered on the verdict was reversed and the case remanded to the trial court.

The physician who performed the operation testified to the community standard of care for operations of the type involved, that the patient was informed of the risk involved, and that she consented thereto. The patient testified that the physician breached the standard of care in that he did not inform her of the risk involved and she did not consent thereto. A verdict should not have been directed for the hospital, because the patient's testimony, if believed by the jury, would have been sufficient to support a verdict in her favor.

The trial court erred in not permitting the patient to call the operating physician as an adverse witness. A person may be called as an adverse witness even though he is not actually joined in the suit as an adverse party. The physician's interests were obviously allied with those of the hospital. Thus, he was an adverse witness and the patient was not bound by his unfavorable testimony.

The trial court did not abuse its discretion in quashing the patient's subpoena directing a physician who had not treated her to appear as an involuntary expert witness. The physician filed an affidavit stating that he: had absolutely no knowledge of the facts of the case; had not agreed to give expert testimony for either party; had not treated or examined the patient at any time.

Young v. Metropolitan Dade County, 201 So.2d 594 (Fla., July 25, 1967; rehearing denied, Sept. 5, 1967).

Insecticide Poisoning Not Cause of Brain Damage—Two boys who sustained severe brain damage, allegedly as the result of exposure to an insecticide, were not entitled to recover damages in their suit against the insecticide's manufacturer, the U.S. Court of Appeals for the Eighth Circuit ruled. The evidence established that the brain damage was caused by viral encephalitis, rather than by organo-phosphate poisoning from the insecticide.

The insecticide was mixed with water and sprayed in the various buildings on the farm operated by the boy's father. The boy's clothing became damp from the settling of the spray mist. One of the boys became sick the day after a single exposure. The other boy became sick two days after a second exposure a month later. Their symptoms were chills, lethargy, nausea, vomiting, and dizziness. The first boy's symptoms were more severe. Both boys sustained brain damage as the result of their illness. The first boy will require custodial care for the rest of his life.

The boys contended that their illness was caused by organo-phosphate poisoning resulting from an overexposure to a cholinesterase inhibitor, Ronnel, that was present in the insecticide. The manufacturer contended that the boys had suffered from viral encephalitis.

The medical evidence was in accord as to the respective symptoms of viral encephalitis and organo-phosphate poisoning. Organo-phosphate poisoning is characterized by rapid onset of symptoms, illness of short duration, and either complete recovery or death. The victim has pinpoint pupils, slow heart beat, insomnia, nervousness, tearing, muscle twitching, diarrhea, excessive salivation and lung congestion. Viral encephalitis is characterized by a gradual onset of symptoms, and long illness with a slow recovery that often results in residual brain damage. Important symptoms of viral encephalitis are lethargy, rapid heart beat, and elevation of the white blood count in the spinal fluid.

Two medical witnesses for the boys stated the opinion that they had suffered from organo-phosphate poisoning. That opinion was based largely on the assumption that the boys had suffered excessive salivation. The only evidence as to excessive salivation was the testimony of the boys' father. An expert medical

witness for the manufacturer testified that excessive salivation would appear on chest x-rays as lung congestion and that the boys' x-rays showed no lung congestion. The manufacturer's four expert medical witnesses stated the opinion that the boys had suffered from viral encephalitis. They stressed the following factors: the high white blood count in the boys' spinal fluid, a condition which had never been found in a case of organo-phosphate poisoning; the long duration of their illness; the presence of lethargy, a prime symptom of viral encephalitis, as opposed to the nervousness and insomnia that are characteristic of organo-phosphate poisoning; one of the boy's constipation for 17 days, in contrast to the diarrhea expected in organo-phosphate poisoning. There was also evidence that: the insecticide was extremely low in toxicity to humans; viral encephalitis is easily contracted from farm animals; although more than two and one-half million pounds of the insecticide have been sold, no case of injury from it had ever been reported. This evidence was sufficient to support the jury's finding that the insecticide did not cause the boys' brain damage.

The trial court did not err in excluding from evidence a segment of a hospital record which contained a conclusion that the boys' condition was due to inhalation of the insecticide. Hospital records are generally admissible under the business records exception to the hearsay rule. Such records necessarily contain some basic conclusions, but there is a point at which conclusions as to the cause of injury become objectionable. The conclusion in the hospital records was not one that all physicians would be likely to reach. It was not based on directly observable facts or well-known tests. It was the conclusion of one physician, based on his evaluation of a number of variable factors. If the physician's opinion was wanted as evidence, he should have been called as an expert witness.

Skogen v. Dow Chemical Company, 375 F.2d 692 (C.A. 8, March 30, 1967).

No Liability for Scarring Following Vein Ligation—A patient was not entitled to recover damages in a suit against a physician for the scarring of her legs resulting from an operation to strip and excise varicose veins, a Texas intermediate appellate court ruled. There was evidence to support the jury's finding that the operation was performed with the patient's informed consent, and it was immaterial that her husband did not consent to the operation. There was not sufficient evidence of negligence on the physician's part to warrant submission of the issue to the jury.

The physician testified that he had fully explained to the patient that it would be necessary to make incisions in the veins and that it was probable that scarring would result. There was written evidence of the patient's consent, consisting of a form bearing her signature which specifically authorized a bilateral vein ligation and all other necessary and closely connected surgical procedures. The patient testified that she had consented only to an operation for the removal of an ulcer that had been caused by a burn. She said that the physician had recommended vein ligation on a number of occasions, but she had always refused to submit to the operation. She stated that the authorization form had been signed in blank.

The jury was the judge of the credibility of the witnesses and the weight to be given their testimony. It apparently believed the physician. His evidence was of probative value and was sufficient to support the jury's finding that the patient consented to the vein ligation and that her consent was an informed one. The jury's finding was not so contrary to the great weight of the evidence as to be clearly wrong.

It was immaterial that the consent of the patient's husband was not obtained. The patient was an adult, and no question appeared or was raised as to her mental capacity. A person does not fall into the classification of "property"; the patient had the right to consent to the operation, and her husband's consent was not necessary.

The trial court did not err in refusing to submit to the jury the issue of negligence on the physician's part in the performance of the operation. Expert medical testimony is required to establish negligence in medical malpractice cases, except where the negligence is so plain as to be within the common knowledge of laymen. The patient presented no such evidence.—*Jeffcoat v. Phillips*, 417 S.W.2d 903 (Tex., June 27, 1967; rehearing denied. July 25, 1967).

Minor's Consent to Vasectomy is Binding—An 18-year-old patient who was married and independent of parental control and support was not entitled to recover damages in a suit against a physician for injuries resulting from a vasectomy performed on him by the physician without his parents' consent. The jury was correctly instructed as to the factors to be considered in determining his capacity to consent to the operation and the evidence supported the jury's finding that he was legally capable of consenting, the Washington Supreme Court ruled.

At the time of the operation, the patient and his wife had one child. He was gainfully employed, supported his family and maintained a home for them. He and his wife told the physician that the sterilization was desired because of his affliction with myasthenia gravis. The physician testified that he illustrated the operation with a diagram and explained that it would result in permanent sterilization. The evidence was conflicting as to whether the patient represented that he was of

legal age. The physician gave the husband and wife a consent form, containing a statement as to the operation's permanent nature, and told them to go home and think about it. Several days later the patient returned with the consent form signed by himself and his wife, and the operation was performed. After attaining his majority, the patient brought this suit.

The jury was instructed that: a minor was legally capable of consenting to an operation if he was capable of understanding the consequences of the operation; age, intelligence, maturity, training, experience, economic independence or lack thereof, general conduct as an adult, and freedom from parental control were factors to be considered in determining whether the patient had the capability of understanding the consequences of the operation. The patient contended that the instructions were improper. He argued that since he was a minor, he could not give a valid consent to the operation, and that the physician was liable because he had not obtained the consent of the patient's parents.

Emancipation of a minor may occur even in the absence of a statute. The general rule is that the marriage of a minor works an emancipation. The patient was emancipated for the purpose of giving a valid consent to surgery if a full disclosure of the ramifications, implications and consequences of the surgery was made by the physician in terms which were fully comprehensible to the minor patient. The jury was properly instructed as to the factors to be considered in determining whether he had the capability of understanding the operation's consequences.

Sometime after the operation was performed, the patient and his wife were divorced. The trial court did not err in permitting the patient to be cross-examined about his failure to comply with the child support requirements of the divorce decree. The patient had introduced the issue by presenting medical testimony as to his great concern for the child, his great desire to have children of his own, and the psychological damage caused by the vasectomy.—*Smith v. Seibly*, 431 P.2d 719 (Wash., Aug. 31, 1967).

Hospital Not Liable for Staphylococcus Infection—Damages could not be recovered against a hospital by a patient who, after a skull operation, developed a staphylococcus infection in the operative area as the result of the hospital's alleged failure to follow proper antiseptic procedures. There was no prejudicial error in the trial court's rulings on the admissibility of evidence or in its instructions to the jury, the Oregon Supreme Court ruled.

The trial court refused to admit the opinion of a clinical microbiologist who testified for the patient as to the source of the patient's infection, on the ground that the microbiologist did not have certain information from the patient's physician which was necessary to the formation of such an opinion. From the offer of proof it appeared that the microbiologist did not have an opinion as to the particular source in the hospital from which the infection came. Her opinion was only that it was more probable that the infection came from within the hospital than from without the hospital or from the patient's person. Her opinion was based on her evaluation of the hospital's procedures as they related to the spread of infection. Since she did not attempt to trace the infection to a particular source, the physician's findings were not necessary as a basis for her opinion, and her opinion should have been admitted in evidence. However, the error was not prejudicial. Two physicians gave substantially the same testimony as that which was excluded.

The trial court did not err in refusing to submit to the jury the issue of whether the patient's condition resulting from an aneurysm was aggravated by the infection. On the basis of its belief that no aggravation had been pleaded, the trial court instructed the jury that there was no issue of aggravation in the case. The allegation that the patient had been prevented from recovering from the aneurysm operation did not constitute an allegation that the condition resulting from the aneurysm had been aggravated by the infection.

The trial court did not err in denying the patient's motion to recall the jurors to determine the basis of their decision. In support of her motion, the patient presented an affidavit stating that four jurors said after the trial that the jury had decided that the hospital was negligent, but had not returned a verdict for the patient because they thought the patient had to prove all of her claims of damages before she could recover for any of them. A jury may not impeach its verdict.—*Sneath v. Physicians and Surgeons Hospital*, 431 P.2d 835 (Ore., Sept. 20, 1967).

Physician Liable for Mammoplasty Without Informed Consent—A Florida trial court jury awarded damages of $13,000 to a patient in her suit against a physician for having performed a mammoplasty on her without informing her that the size of her breasts would be reduced as a result of the operation. The patient testified that her breast line was reduced from size 42 to size 38 by the operation and that this change in her figure caused her to lose her fiance. The patient testified that the physician made no mention that the size of her breasts would be reduced when she discussed the operation with him. The physician testified that he had informed the patient that the size of her breasts would be reduced by the operation.—(News Release, Miami, Florida, Nov. 30, 1967).

Hospital Liable for Amputation by Unlicensed Employee—A minor patient was awarded damages of $6,500 by an Illinois trial court jury in her suit against a hospital for the removal of the tip of one of her fingers by a hospital employee who was not licensed to practice medicine. The patient was brought to the hospital emergency room with the finger tip almost severed. The employee removed four millimeters. The expert medical witnesses agreed that: the procedure was one that should have been performed by a physician; a physician might have sewed the finger tip back on; the procedure was not necessary to stop bleeding. There was also the fact that since the patient's parents had not brought her to the hospital, their consent to the procedure was not obtained.—*Circelli v. Franklin Boulevard Hospital*, Cir. Ct., Cook Co., Docket No. 62S-19647 (Ill., Oct. 25, 1967).

No Liability for Partial Paralysis During Surgery—In a suit against a surgeon by a patient who suffered partial paralysis during an emergency operation to control a severe nosebleed, a jury verdict in favor of the surgeon was affirmed by the Pennsylvania Supreme Court. The evidence supported the finding that the paralysis had not been caused by the ligation of the internal carotid artery, which would have constituted malpractice.

The patient had had severe, uncontrolled bleeding of the nose for three days and was in an extremely critical condition. The patient's physicians called in the surgeon to perform the emergency operation which was imperative to save his life. During the operation he had to be given 15 pints of blood.

The expert witnesses for both sides testified that if the surgeon had ligated the internal carotid artery, that would have constituted malpractice. The surgeon and his three expert medical witnesses testified that the surgeon ligated the external carotid artery, not the internal carotid artery. One of the patient's expert medical witnesses testified that the surgeon ligated the internal carotid artery and that this caused the partial paralysis. However, he admitted that an aneurysm, shock, muscle spasm, arteriosclerosis or malformations of the arteriovenous system, singly or in combination, could also have possibly caused the paralysis. The patient's other expert medical witness testified that the partial paralysis was caused by the surgeon's ligation of the internal carotid artery. This witness disagreed with almost everything that the surgeon's expert medical witnesses testified to. Because of the extreme conflict in the testimony and the question of the credibility of the witnesses, this case was one that could be resolved only by the jury, and its conclusion would not be disturbed. —*Horst v. Shearburn*, 233 A.2d 236 (Pa., Sept. 26, 1967).

Physician Not Liable for Sponge in Body—An Illinois trial court jury returned a verdict in favor of a physician in a suit for damages for injuries allegedly caused by his having left a sponge in the body of a three-year-old girl during surgery. The physician had previously performed an appendectomy on the patient. The second operation was performed when an abscess developed at the incision. A few days later, a green discharge began to come from the incision and it became odorous. Three weeks after the corrective operation, a piece of gauze showed through the incision. A third operation was performed and a gauze sponge was removed from the patient's body.

The sponges used in the appendectomy contained radiopaque material; the sponges used in the second operation did not. The sponge removed from the patient's body did not contain the radiopaque material. The physician contended that the decision to perform the corrective operation constituted the exercise of medical judgment and denied that the gauze sponge was left in the patient's body during the operation.—*Piacentini v. Bonnefil*, Cir. Ct., Cook Co., Docket No. 60 CH-21811 (Ill., Nov. 2, 1967).

No Warranty of Effectiveness by Drug Manufacturers—A trial court properly dismissed a suit for breach of warranty against the manufacturers of penicillin and tetanus toxoid drugs by a patient who developed tetanus after having been administered the drugs. The manufacturers' brochures published for use in connection with administration of the drugs contained no warranty, express or implied, as to either drug's absolute effectiveness on tetanus or any other ailment, a Louisiana intermediate appellate court ruled.

The patient was admitted to a hospital, suffering from a cut on her nose and a more serious laceration on her right knee. Shortly after her admission, she was administered penicillin and tetanus toxoid. Surgery was performed on her knee and she was discharged from the hospital two days later. Ten days after the accident the patient had difficulty in fully opening her mouth. She was hospitalized. A diagnosis of positive tetanus was made.

The patient alleged that the manufacturers warranted that the drugs would prevent tetanus under the circumstances of her injuries and that the physicians who administered the drugs relied on the warranties.

The two physicians who administered the drugs testified that: they did not rely on any warranty by the manufacturers that either drug would prevent tetanus; they knew of no warranty by any distributor guaranteeing the prevention of tetanus under the circumstances arising out of their treatment of the patient; they did not rely on any such alleged warranty in administer-

ing the drugs to the patient.

The manufacturers' brochures published for use by physicians in connection with the administration of the drugs contained no warranty, express or implied, as to the absolute effectiveness of the drugs on tetanus or any other ailment. The brochures merely contain recommendations as to what symptoms indicated use of the drugs and the time and method of administration and certain warnings as to their use.—*Butler v. Travelers Insurance Company*, 202 So.2d 354 (La., June 30, 1967; rehearing denied, Sept. 27, 1967).

New Trial in Suit Against Hospital for Arm Injuries—There was substantial competent evidence that would have supported a verdict in favor of a six-year-old patient in her suit for damages against a hospital for arm injuries caused by the hospital's allegedly negligent use of restraining boards, a Florida appellate court ruled. The judgment entered on the directed verdict for the hospital was reversed and the case remanded for a new trial.

When the patient was returned to her room following an eye operation, she was in a semiconscious, heavily sedated condition and had bandages over both eyes. Restraining boards were taped on both arms to prevent her from touching the dressings. Sometime after the boards were applied the patient began to groan, move about and complain about her left arm. A nurse checked the patient's arm at the request of her mother and said that the boards were not too tight. The patient continued to move about and complain of her left arm during the rest of the night. Two blood red spots were found on the patient's left elbow when the boards were removed the next morning. Considerable swelling developed in the arm and as a result of the injury the patient had considerable difficulty with the arm for some time thereafter. An orthopedist who treated the arm after the patient left the hospital testified that it was within the realm of reasonable medical probability that the injury was caused by some mechanical external pressure which could have resulted from the boards being too tight or from the patient's struggling against them to reach her eyes. He said that he could not tell which, if either alone, had caused the injury.

The jury could have found that the injury resulted from fastening the boards too tightly on the patient's arm. Or it could have found that the hospital employees were negligent in preventing the patient from struggling against the boards, particularly in view of her age and the fact that the hospital had notice of the possibility of injury. A greater degree of care is required in the treatment of the very young and the very old, particularly if they are under sedation and in a semiconscious condition.

In granting the hospital's motion for directed verdict, the trial court said that the orthopedist's testimony indicated that there were two possible causes of the injury, one of which, the patient's struggling to reach her eyes, was a non-negligent cause as far as the hospital was concerned. He said that the jury could not be permitted to speculate as to which of the two possible causes was the proximate cause of the injury. The jury could have found that both possible causes were the result of negligence on the hospital's part. It could not be said, as a matter of law, that either possible cause was non-negligent. It was the jury's duty, not the trial court's, to determine whether either or both of the possible causes constituted negligence and which, if either, was the proximate cause of the injury. In so doing, the jury would not be engaging in speculation.—*Moore v. Halifax Hospital District*, 202 So.2d 568 (Fla., Sept. 28, 1967).

Res Ipsa Loquitur Applicable to Hospital Fall—The doctrine of res ipsa loquitur was applicable to a patient's suit against a hospital for negligence and breach of implied contract for injuries sustained when the chair holding the bedpan that she was using broke and she fell to the floor, a Florida appellate court ruled. The judgment entered on the directed verdict for the hospital was reversed and the case remanded for a new trial.

When the patient complained that she was unable to have a bowel movement on the bedpan while it was under her on the bed, a nurse brought her a straight back chair and put the bedpan on it. The patient testified that while she was sitting on the bedpan the chair's pasteboard or paper bottom broke through and she fell to the floor. She claimed that her back was injured in the fall.

The patient contended that the evidence was sufficient to raise questions as to whether the hospital breached its implied contract with her and whether it was negligent in not caring for her properly and in not properly maintaining the equipment under its control. The doctrine of res ipsa loquitur was available to aid the patient, the court said. The hospital had impliedly contracted to provide the patient with proper care. The chair was supplied by the hospital and was under its exclusive control. The hospital was required under the implied contract to provide the nurse's assistance that the patient requested. Because of her sick condition, the patient did not have an equal opportunity to observe and examine the chair.—*Williams v. Orange Memorial Hospital Association*, 202 So.2d 859 (Fla., Sept. 28, 1967; rehearing denied, Oct. 24, 1967). ◄

The Cancer You View

The lesion is an invasive squamous cell carcinoma of the vulva. This slow-growing, rather indolent tumor began as a very shallow ulcer and had become tender, presumably because of local infection. Sometimes this lesion will begin as a small, rather inconspicuous lump on the labia which will later break down with intense itching and soreness. Patients will use different kinds of ointments, creams and other home remedies for relief. These carcinomas usually assume one of two basic forms: a fungating, reddened, strawberry-like tumor with overhanging edges; or an ulcerated, shaggy, irregular excavation which is dull and covered with exudate. Most carcinomas are found on the lateral and lower borders of the labia majora. They are found less often involving the clitoris and labia minora and, rarely, in the orifices of the urethra, vagina or anus. The neoplasm may spread either by local extension or by lymphatic embolization.

Only a few lesions can be mistaken for a vulvar carcinoma. Some infections of the vulva (tuberculosis and lesions of secondary or tertiary syphilis), condylomata acuminata, epidermal and mucous cysts, angiokeratomata and other rare tumors must be differentiated. An enlarged lymph node in the groin, especially Cloquet's node, is one of the more important and grave diagnostic signs to observe.

Procrastination is probably the greatest single problem in diagnosing vulvar cancer. Bleeding is not usually a problem. Modesty is perhaps a factor in the older patient. Physician delay is also a problem since many of these patients are treated with local medication by their physician for months prior to realization of the true diagnosis and biopsy.

The only effective way to diagnose this lesion is by biopsy. Biopsy tissue can usually be easily obtained under local anesthetic in the office. Excision with an adequate margin can sometimes be accomplished for small lesions; however, incisional biopsies are usually adequate to provide the diagnosis. Cytologic smears could be taken from the lesion but the accuracy is not great enough to replace biopsy in the diagnosis of carcinoma of the vulva. False negatives result from the presence of a thick layer of exudate or adherent hyperkeratotic cells over the cancer cells which prevent exfoliation of diagnostic cells by the scraper.

This carcinoma often arises in a broad area of leukoplakia and may be multicentric in origin. Carcinoma in situ precedes invasive cancer. If the lesion is diagnosed at this stage, excisional therapy will cure nearly 100% of the patients.

The primary treatment for squamous cell carcinoma of the vulva is surgical excision. In situ carcinomas and small basal cell carcinomas can be treated by wide local excision or simple vulvectomy. Invasive carcinomas, however, are best treated by an *en bloc* removal of the vulva and superficial inguinal and femoral lymph nodes. Local excision, hemivulvectomies, and other incomplete procedures for invasive carcinomas give the poorest results and are to be condemned.

Despite the advanced age of most of these patients, they tolerate the surgery well. The overall five-year survival rates are better than 40% with the operation described above. Five-year survival rates of 60% to 80% have been obtained when the dissection includes the deep inguinal and iliac nodes. This is a formidable operation which is often performed in two stages. Except for frequent sloughing of the skin flap margins, the morbidity is surprisingly low. Irradiation therapy gives very poor results and has no place in the treatment of carcinoma of the vulva, except as late palliation for recurrent or nonresectable disease. ◄

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ABSTRACTS

BOOK REVIEWS

THE HUMAN ADRENAL CORTEX

Ciba Foundation Study Group, edited by G. E. W. Wolstenholme and Ruth Porter, Little, Brown & Co., Boston, Mass., 1967; 145 pages with 26 illustrations.

This study group was held to honor Professor F. Verzar on the occasion of his 80th birthday. The assorted score and more participants had all been associated, in one way or another, with this distinguished representative of Basel, Switzerland.

The honoree opened the meeting with a resume of his work on the adrenal cortex during this century. The succeeding speakers dwelt on this or that facet of our expanding understanding of this enormously important gland.

I regret to say that, in my opinion, there was too much casual rambling and not enough "wrapping up" to make the session a coherent whole. Almost any chapter on endocrinology will give the reader a better overall view of the stated topic.

The bibliography is very good: so is the printing and paper. Probably, I expected too much. None the less, my disappointment remains very real.

ARNOLD LIEBERMAN, M.D.
New York, N.Y.

THE ALLERGIC ASTHMATIC

Irvin Caplin, M.D., Charles C Thomas, Springfield, Ill., 1968; 105 pages; $4.75.

This excellent little book is one that every physician should read, but it is particularly important to the physician that is caring for allergic patients and especially those with asthma. The book is written in such a way that it is probably even more useful as a handbook for the patient and his family. It contains the fundamentals of the knowledge of what is known about allergic asthma and related allergic conditions and their management, written in a clear non-technical language such as that which should be the means of communication between a physician and his patient. Unfortunately not all physicians have the ability to talk to their patients in the way Doctor Caplin has done so well, and not many physicians have the time to spend in this type of discussion. This book offers the opportunity to give the patient an orderly and easily used source of information and answers to the many questions that most allergics have about their condition and its management. The author refers to the similarity between the diabetic and the allergic in the importance of their understanding of their disease and in the high degree of self management that is necessary if the patient is going to have the maximum benefit from the treatment prescribed by his physician.

Not only does this book give the patient an understanding of the general subject of allergic asthma but it contains sections of very practical information which can be used as a source of reference during the prolonged treatment that such cases need. Notable examples of such reference guides are the sections on avoidance of dust and the management of foods sensitivities.

This is a pleasant book to read but it is also an extremely useful and practical book. The physician would be well advised to see that every one of his asthmatic patients has a copy and that he has a copy in his library as well.

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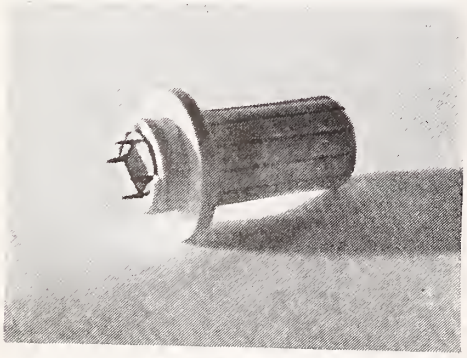

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Abstracts From Various Literature, Prepared by AMA

ADRENOCORTICAL ATROPHY DURING CORTICOSTEROID TREATMENT FOR MAMMARY CARCINOMA

P. F. Marton (Aker sykehus, Patologisk anatomisk laboratorium, Oslo)

Nord. Med. 78:1193-1196, (Sept. 14), 1967.

Adrenal glands from 24 women treated with corticosteroids for disseminated carcinoma of the breast were studied at autopsy. Adrenal glands from two groups of women, who had not received corticosteroids and were dying from cardiovascular disease (12 cases) and other types of cancer (15 cases) were studied for comparison. The mean adrenal weight was significantly reduced in patients treated with corticosteroids. During corticosteroid treatment, morphological changes took place in the adrenal cortex; macroscopical pallor, microscopical reduction of cell size in the zona fasciculata, and lack of signs of adrenocortical reaction to stress were the most prominent features. Mean adrenocortical thickness was significantly reduced after treatment with corticosteroids, compared with the patient groups used for control. The main reduction of the adrenocortical thickness occurred during the first four to five months of treatment. In the group of corticosteroid-treated cases of breast cancer two patients with marked adrenocortical atrophy had metastases in the pituitary gland.

CORRECTION OF THE HEMOSTATIC DEFECTS IN VON WILLEBRAND'S DISEASE

H. A. Perkins (270 Masonic Ave., San Francisco)
Blood 30:375-380, (Sept.), 1967.

The pool cryoprecipitate provides an effective source of the factor lacking in the plasma of patients with von Willebrand's disease which is necessary for a normal bleeding time. Correction of the bleeding time appears to be necessary for control of bleeding in some instances of severe spontaneous hemorrhage. None of the commercially prepared antihemophilic factor concentrates prepared in this country contain adequate amounts of the extremely labile bleeding time factor.

CHRONIC HEMODIALYSIS IN "UNSELECTED" PATIENTS

E. Schupak (Mt. Sinai Hospital Services, 79-01 Broadway, Elmhurst, N.Y.), J. F. Sullivan, and D. Y. Lee
Ann. Intern. Med. 67:708-717, (Oct.), 1967.

Patients were selected on a first come, first served basis for a municipally supported chronic hemodialysis program. Liberal criteria governing patient selection were established. Only eight of 35 candidates were rejected. Twenty-six patients, five of whom had been rejected from chronic dialysis programs elsewhere, were dialyzed 2,423 times for periods ranging from two weeks to 21 months, or a total of 267 patient months. Eight patients expired from two weeks to 16 months following the inception of dialysis. Ten patients returned to work, school or housekeeping. The mean I.Q. in 25 patients tested was 92. The survival time for arterial and venous cannulae was 4.8 and 4.5 months respectively. Hypertension, initially present in all, was reversed in each instance, although four patients required bilateral nephrectomy. It is concluded that chronic hemodialysis may be successfully employed in a municipal hospital and that some patients who superficially appear to be poor candidates may be completely rehabilitated when presented with the opportunity.

SMOKING AND MYOCARDIAL INFARCTION IN YOUNG WOMEN

H. Dorken (First Medical University Clinic, Hamburg, Germany)
Munchen Med. Wschr. 109:2129-2134, (Sept. 29), 1967.

During a recent survey of patients with myocardial infarction at the Hamburg University Clinic it was found that 33 women in the age group between 27 and 44 years had suffered a coronary occlusion. Of this group, 20 patients had died and the autopsy findings did not provide any proof of advanced coronary arteriosclerosis. The clinical history of all except two of these patients showed them to have been heavy smokers, consuming at least an average of 18.8 cigarettes per day. A control group of 133 female patients without cardiovascular pathology or cancer of the lungs showed that 63.2% had never smoked and that the rest smoked only occasionally.

TIME INTERVAL FROM CASTRATION IN PREMENOPAUSAL WOMEN TO DEVELOPMENT OF EXCESSIVE CORONARY ATHEROSCLEROSIS

H. M. Parrish et al. (University of Missouri School of Medicine, Columbia)
Amer. J. Obstet. Gynec. 99:155-162, (Sept. 15), 1967.

Autopsy records of 80 patients who had a bilateral oophorectomy before age 50 were compared with 80 control patients. Excess coronary atherosclerotic blockage and myocardial infarcts were present in castrated patients. This had direct relationship to the time interval from castration to "expected menopause" and the time interval from castration to death. Excessive coronary atherosclerosis was not present in women castrated from zero to nine years before age 50. Those castrated ten or more years before age 50 had significantly more severe coronary artery disease. An average of about 14.4 ± 2.57 years passed after castration before excessive coronary atherosclerosis became apparent. The risk of developing coronary heart disease is high for women castrated before age 40, with an expected survival of over 14 years. Estrogen replacement therapy is needed for these patients.

SURGICAL TREATMENT OF REGIONAL ENTERITIS

B. P. Colcock (Lahey Clinic Foundation, Boston)
Amer. J. Surg. 114:398-401, (Sept.), 1967.

In most patients in whom recurrence develops after surgery for regional enteritis, the disease recurs within three years. A few, however, have recurrence of their disease five to eight years after surgery. Within a five- to 15-year follow-up period, 25% of 312 of the author's patients have required reoperation. None of the patients operated on had responded to the best medical treatment, or a complication of the disease developed which made surgery mandatory. It is not true that this disease always recurs after surgery. The other 70% to 75% are either free of symptoms or have mild symptoms which are well controlled by conservative therapy.

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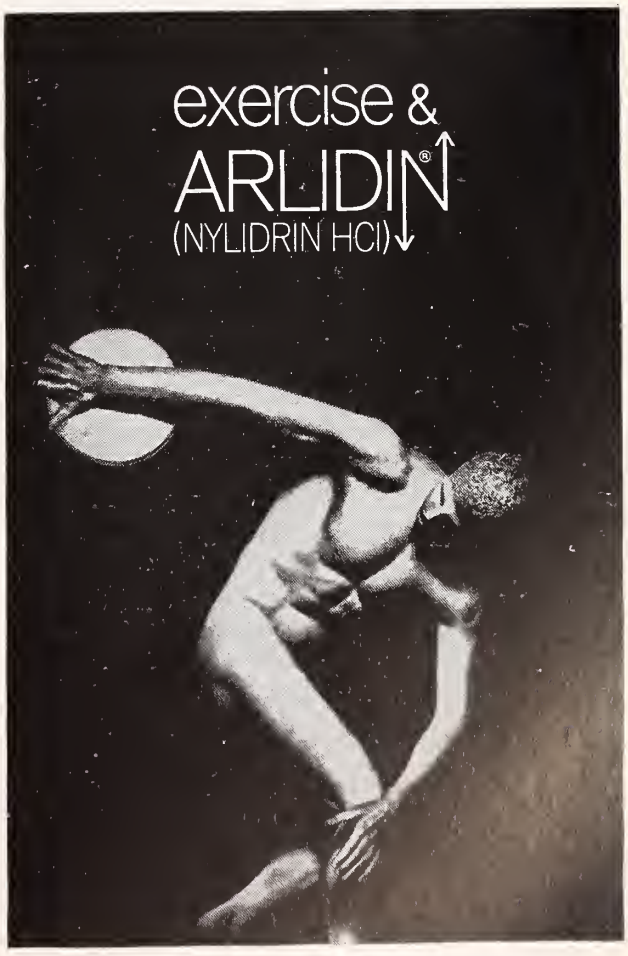

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TOPICAL METHOTREXATE IN PSORIASIS

L. Fry (The London Hospital, London) and R. M. H. McMinn
Arch. Derm. 96:483-488, (Nov.), 1967.

Localized areas of psoriasis in nine patients have been treated with topical methotrexate. Clinically, the lesion improved in all instances and in three there was complete clearing. All the patients except one had a reaction in the skin surrounding the treated lesions. This took the form of erythema, and purpura, and in three instances ulceration. Only two patients showed any similar reactions in the psoriatic lesion. Histologically, there was improvement in the psoriasis in six of the patients within 48 hours. The first sign was the reformation of a granular layer, which in three specimens was normal after one week's treatment with topical methotrexate.

STROKES IN YOUNG WOMEN USING ORAL CONTRACEPTIVES

M. Cole (Bowman Gray School of Medicine, Winston-Salem, N.C.)
Arch. Intern. Med. 120:551-555, (Nov.), 1967.

Six cases of brain infarction in young women associated with the use of oral contraceptives are reported, five having occurred within one year. Other factors known to cause strokes in this age group were absent. The risk of a stroke in persons using oral contraceptives appears to be enhanced, especially in the presence of vascular disease, hypertension or migraine. The indications for using oral contraceptives should be carefully weighed in each case, and consideration should be given to the possibility of serious side-effects.

CHROMOSOME ABERRATIONS IN LEUKOCYTES OF OLDER SURVIVORS OF THE ATOMIC BOMBINGS OF HIROSHIMA AND NAGASAKI

A. D. Bloom et al. (Hijiyama Park, Hiroshima)
Lancet 2:802-805, (Oct. 14), 1967.

Seventy-seven heavily exposed survivors of the atomic bombings and 80 controls were investigated cytogenetically. All were over thirty years of age at the time of the bombs. Complex aberrations were found in 61% of the heavily exposed survivors, and in 16% of the controls. The proportion of these abnormalities in cells of the exposed was 1.5%, and in cells of the control group 0.3%. Unlike the findings in the younger, previously investigated survivors, translocations and pericentric inversions predominated. In addition, what may be clones of translocations were noted in four heavily irradiated persons.

CARBOXYHEMOGLOBINEMIA IN PARKING GARAGE EMPLOYEES

J. M. Ramsey (University of Dayton, 300 College Park Dr., Dayton, Ohio)
Arch. Environ. Health 15:580-583, (Nov.), 1967.

There was an extremely significant difference in the carboxyhemoglobin (COHb) of 38 parking garage employees after a workday of carbon monoxide (CO) exposure that averaged 58.9 ppm. The COHb level of these employees after a day's exposure represented an extremely significant difference from the COHb of 27 control subjects. Practically all the CO accumu-

lated during a workday is eliminated during the nights between workdays. In this study occupational exposure was more instrumental in producing COHb than was smoking. When the air is monitored for CO for a sufficiently long period to establish equilibrium, a crude estimate can be made of the COHb in those exposed for this time from such a source alone.

TREATMENT OF ACUTE AND CHRONIC OSTEOMYELITIS AND SOFT TISSUE INFECTIONS WITH LINCOMYCIN

S. I. Hnatko (10830 Jasper Ave., Edmonton, Alberta)

Canad. Med. Assoc. J. 97:580-584, (Sept. 9), 1967.

Lincomycin proved to be a valuable antibiotic therapy in five patients with acute osteomyelitis and ten with chronic osteomyelitis. It was also effective in severe soft tissue infections due to *Staphylococcus aureus* and *Streptococcus pyogenes*. It was administered intravenously, intramuscularly, and orally, and successful results were noted in 12 of the osteomyelitis cases and seven of soft tissue infection. The drug was extremely well tolerated when used in large doses over long periods of time. Its value may well be ascribed to its capacity to penetrate diseased bone and severely infected soft tissue; but whatever the explanation, certain clinical results of its use have been outstanding. Some patients whose infections did not respond well to other forms of antibiotic therapy and who had prospects of a long life of chronic illness before them, responded well to lincomycin.

MANAGEMENT OF ACUTE PANCREATITIS

A. G. Thompson, R. A. Brown and J. G. Moffat (1650 Cedar St., Montreal)

Canad. J. Surg. 10:403-407, (Oct.), 1967.

Increasing experience with experimental and clinical pancreatitis has led to certain changes in its clinical management. Over the past ten years, 153 patients with acute pancreatitis were treated; mortality rate was 9.2% (14 deaths). This is a great improvement over results obtained in a group of 57 patients seen between 1947 and 1953, with a mortality rate of 19.3%. At present, treatment includes the use of plasma expanders, whole blood, adequate analgesia, which may mean continuous epidural block, gastric suction, water and electrolytes, antibiotics, the use of proteinase inhibitor, Trasylol, and, on occasion, early operation. Central venous pressure monitoring has aided greatly in the management of the severely ill patient. Trasylol was administered to the last 60 patients, and in this group the mortality rate fell to five percent (three deaths). This reduction cannot be attributed to the use of this agent alone; the overall treatment of pancreatitis has become more aggressive and intensive.

EWING'S SARCOMA

C. W. Boyer, Jr., T. J. Brickner, Jr., and R. H. Perry (Walter Reed Army Medical Center, Radiology Service, Washington, D.C.)

Cancer 320:1602-1606, (Oct.), 1967.

Thirty cases of Ewing's sarcoma were treated at Walter Reed General Hospital since 1949. A review of this experience and that of others has failed to reveal any valid reason for a heroic surgical attack. Removal of limbs and other portions of the body has become a needless surgical exercise. Radiation therapy regularly controls the lesion and is the most effective agent for palliation of metastasis. ◄

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Phenobarbital, Caution: May be habit forming . . . 21 mg.
Ephedrine HCl . . . . . 16 mg.

FEDERAL LAW PROHIBITS DISPENSING WITHOUT PRESCRIPTION

Precautions: Usual for aminophylline-ephedrine-phenobarbital. Iodides may cause nausea, long use may cause goiter. Discontinue if symptoms of iodism develop.

Iodide contraindications: tuberculosis, pregnancy.

DOSAGE

One tablet, with full glass of water, 3 or 4 times daily.

Dispensed in bottles of 100 and 1000 tablets.

MUDRANE GG—Formula, dosage and package identical to Mudrane—*except*—100 mg. glyceryl guaiacolate replaces the potassium iodide. The value of Mudrane cannot be enjoyed by a small group in which K.I. is contraindicated. Mudrane GG is prepared for this group.

MUDRANE GG ELIXIR—Four 5 cc teaspoonfuls is equivalent to one Mudrane GG tablet. Dosage adjusted to age and weight of child. Mudrane GG Elixir is for pediatric patients and those who think they cannot swallow tablets. Dispensed in pint and half gallon bottles.

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APPOINTMENTS AND REAPPOINTMENTS TO AMA COMMITTEES AND COUNCILS

Appointments and reappointments to the councils and committees of the AMA have been announced for 1968. Indiana physicians figured prominently in the selections.

Dr. Donald E. Wood, Indianapolis, was reappointed to the Council on Legislative Activities.

Dr. Earl W. Mericle, Indianapolis, was reappointed to the Committee on Alcoholism and Drug Dependence.

Dr. Neal E. Baxter, Bloomington, was reappointed to the Committee on Aerospace Medicine and was named its chairman.

Dr. Norman R. Booher, Indianapolis, was reappointed to the Council on Voluntary Health Agencies.

Dr. C. G. Culbertson, Indianapolis, was reappointed to the Committee on Blood and was appointed as chairman to succeed Dr. Charles Smeltzer, who resigned.

Dr. Herman Wing, Gary, was reappointed to the Committee on Medicolegal Problems.

Dr. Eugene Rifner, Van Buren, was appointed to the Committee on Planning and Development.

Dr. Wallace D. Buchanan, South Bend, was reappointed to represent the American College of Radiology on the AMA Interspecialty Committee.

Dr. Sprague Gardiner, Indianapolis, was reappointed to the Committee on Human Reproduction.

Dr. John B. Hickam, Indianapolis, was reappointed to the Committee for Research on Tobacco and Health.

Western Indiana Breast Cancer Detection Project Aided by Physicians

One thousand, five hundred women over the age of 35 were examined and instructed in breast self-examination by physician members of the medical societies of Vigo, Vermillion, Parke, Sullivan, Greene, Clay and Putnam Counties on March 2, 1968.

The Breast Cancer Detection Project was co-sponsored by the American Cancer Society in conjunction with local county medical societies. It had as its purpose, primarily, the stimulation of interest in breast self-examination on a monthly basis by women of the susceptible age groups. It was hoped that they, in return, would serve to encourage others, either close relatives or friends, to participate in breast self-examination and to visit their physicians on a regular basis.

It had as its goal earlier diagnosis and treatment through earlier recognition by the patient of the presence of a breast lump. In the majority of instances, the woman herself discovers the lump and she may as well discover it through examination on a regular basis rather than accidentally, without any knowledge of how long it had been there. There was no intention of replacing regular physician examination, however, and this was encouraged on a routine basis.

Altogether 1,500 women were examined in the seven county area at their local hospitals. Eighty-nine breast abnormalities were detected and referred to the patient's private physician. Of these, 23 were initially recommended to have breast biopsy but the final tabulations of results are not yet available, although one radical mastectomy has already been performed. It was surprising too how many women in the entire group presented themselves to the clinic for instruction, even though they had been examined by their own physicians within the preceding six months.

Physician participation, although somewhat hesitant at first, was favorable during the clinic and very receptive afterwards. They were somewhat taken aback by the large number of women presenting themselves with breast lumps and recognized the necessity for some sort of community endeavor such as this in other areas of health as well.

The Breast Cancer Detection Project, a pilot venture in Indiana and the first of its kind with several county participation in the nation, was observed by visiting physicians from other counties in Indiana, by members of the Indiana Division of the American Cancer Society, and by representatives of the society's national office.

The project was preceded by a symposium on female cancer, given at the Terre Haute Academy of Medicine, and attended by 102 physicians. Speakers on the panel were provided by the Professional Speakers Bureau of the American Cancer Society, Indiana Division, Inc.

Doctors Attend Institute

Drs. Eugene Senseny and Alvin Haley, Fort Wayne, represented the Fort Wayne Medical Society recently at the American Medical Institute in Chicago.

Dr. Poncher Speaks

Dr. John R. Poncher, Valparaiso pediatrician, recently addressed the graduating laboratory technicians at Porter Memorial Hospital. His topic was "Doctor-Technician Relationships."

Dr. Juan Boliver Speaker for History of Medicine Society Meeting

Dr. Juan Bolivar, of the Indiana University Medical Center, will speak at the May 8 meeting of the John Shaw Billings History of Medicine Society. "A Footnote to Medical History: National Medical Crises in France and Cuba That I Have Witnessed" will be the topic.

The group meets at the I.U. Student Union Building, Indianapolis. The social hour begins at 6:00 p.m., dinner is set for 6:45 p.m. and the speaker at 8 p.m.

Doctors Attend Practice Review

Dr. Robert Carpenter and Dr. Thomas Stolz, West Lafayette, recently received practical advance training at the University of Colorado Medical Center. The physicians were among

200 physicians from 37 states enrolled in the 13th Annual General Practice Review.

Dr. Atkins Honored

Dr. C. C. Atkins, Rushville, was honored for his unusual record of 30 years of perfect Rotary attendance at a recent meeting of the Rushville Rotary Club.

SKF Grant Aids in Building Philadelphia Medical Art Center

ARS MEDICA CENTER is a developing medical art center in the Philadelphia Museum of Art. The Center was made possible by a large grant from the Smith Kline & French Foundation and is dedicated to the collection of prints and drawings relating to the medical sciences. It is also planned to create a center for pictorial research in subjects pertaining to the history of medicine and allied professions.

Tribute Paid to Dr. Meiks

Dr. Lyman T. Meiks, Indianapolis, retiring chairman of the pediatrics department at James Whitcomb Riley Hospital for Children, has been given a vote of appreciation by the Board of Governors of the Riley Memorial Association.

Dr. Meiks served on the staff of Riley for 36 years and as chairman of the pediatrics department for the last 16 years.

Dr. Rosenbaum is Elected

Dr. Irving Rosenbaum, Jr., Indianapolis, was elected president of Indianapolis Pre-School Centers Inc. at the group's annual meeting.

Pre-School Centers, in its third year of operation, is the anti-poverty agency providing classes for culturally deprived three- and four-year-olds.

1968 Merck Sharp & Dohme Clinical Pharmacology Awards

Four physicians, one each from Finland, Great Britain, Indonesia and Pakistan, have received the 1968 Merck Sharp & Dohme International Fellowships in Clinical Pharmacology.

The program, which was originated in 1964, is designed to help relieve the worldwide shortage of clinical pharmacologists. Each appointee will have two years of study in the United States, and will then return to his native country for a career of research and teaching.

Dr. Dodds Elected

Dr. James U. Dodds, Hartford City, has been elected to the Board of Health there.

Dr. Love Named

Dr. V. Logan Love, Marion, has been elected to the board of directors of the Syracuse Medical Alumni Association, Inc.

Film on OB-GYN Clinical Application Of Ultrasound Available on Loan

Application of ultrasound for diagnosis in obstetrics and gynecology is demonstrated in a 7½-minute color film which is available on loan from the Medical Division of Magnaflux Corporation.

The film, "The MD-500 Ultrasonic Doppler Instrument," shows how the instrument is used to detect fetal heart beat in the eighth week of gestation and to diagnose placenta previa

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● Elemental Iron (as Ferrous Fumarate)	100 mg
● Dioctyl Sodium Sulfosuccinate (to counteract constipating effect of iron)	100 mg
Vitamin B_1	7.5 mg
Vitamin B_2	7.5 mg
Vitamin B_6	7.5 mg
Vitamin B_{12}	50 mcgm
Vitamin C	200 mg
Niacinamide	30 mg
Folic Acid	0.05 mg
Pantothenic Acid	15 mg

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*anticostive, *adj.* (*anti* opposed to + *costive* causing constipation.) Against constipation. (Now isn't that a good idea in an iron-containing hematinic? We'll send you samples if you'll send a request on your Rx blank, addressed to Department 150.)

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and intrauterine death. As the sound track of the film reproduces the Doppler echo signals characteristic of the fetal heart, the mother's heart, etc., in various clinical situations, the narrator relates the variety of sounds to the anatomical phenomena under study and explains how the Magnaflux instrument operates to make clear distinctions among them.

Basis of the script is clinical experience with the instrument at Cook County Hospital, Chicago, Ill., whose staff cooperated in the film presentation.

Medical societies and other professional groups may borrow a film free of charge for exhibit at meetings or seminars. To obtain a print, write MD-500 Film, Medical Division, Magnaflux Corporation, 7300 W. Lawrence Ave., Chicago, Ill. 60656.

Dr. Horvath Joins Staff

Dr. George A. Horvath, Indianapolis, recently joined the staff of the South Bend Clinic where he is in the practice of pediatrics.

Dr. Parke Named

Dr. William C. Parke, Warsaw, has been elected to active membership in the American Academy of General Practice.

1968 Rorer Awards Contest of American College of Gastroenterology

The American College of Gastroenterology, in cooperation with William H. Rorer, Inc., announces the 1968 Rorer Awards Contest for the best papers in gastroenterology.

For the best unpublished papers in gastroenterology or an allied subject, the first prize will be $500 and a three-year subscription to *The American Journal of Gastroenterology.* Second prize will be $300 and a two-year subscription; third prize will be $200 and a one-year subscription. Identical prizes are also offered for the best paper published in *The American Journal of Gastroenterology.* For details write the College at 33 W. 60th St., New York City 10023.

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• Torpedoed on the Murmansk run —nearly frozen to death in an open boat—both legs lost below the knee—ex-Merchant Marines Michael McCormick and William Morris walked unaided in three weeks. They could look forward with certainty to leading a normal life again. To these men, as to thousands of other Hanger wearers, the phrase "Hanger is a symbol of help and hope" is a concrete truth proven by every day of their future lives.

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446 W. Pontiac Street, Fort Wayne, Ind. 46807
416 N. Main Street, Evansville, Indiana 47711

Dr. Widdifield Re-elected

Dr. Garth E. Widdifield, Indianapolis, has been re-elected to membership in the American Academy of General Practice.

Dr. Fiacable Joins Staff

Dr. Joseph Fiacable, Indianapolis, has been appointed director of the Adult Psychiatric Division of the New Mental Health Center in Fort Wayne.

New Nursing Home Opened In South Bend, Indiana

The Carlyle Nursing Home of 5024 Western Ave., South Bend, was opened on January 27th. It is a development of the American Medical Development Company and was built and will be operated as a skilled-care and convalescent home.

Dr. Montgomery gets U.S. Post

Dr. W. Foster Montgomery, Indianapolis, has been appointed regional medical director and scientific attache for all of Central America and part of South America. This is a State Department appointment and the area is one of seven over the world. Dr. Montgomery will be in charge of medical facilities and medical care of all non-military United States personnel in his area.

Dr. Kidder Re-elected

Dr. O. T. Kidder, Fort Wayne, has been re-elected secretary, superintendent, and medical director of Irene Byron Hospital, Fort Wayne.

New Detailman

Mr. Ralph J. Napolitano will be in charge of hospital-surgical sales for Becton, Dickinson and Company for Ohio, Michigan and Indiana.

U.S.P.H.S. Folder Lists Films Available on Evils of Smoking

"Don't Smoke, If You Do—Stop, If You Don't—Don't Start."

This sage advice might be said to be the motto of a new type of educational material, films and filmstrips, from a variety of sources—all available on free loan for use by public health spirited groups.

The U.S. Public Health Service has published a small folder which lists films and strips which are designed to help the smoker stop or to encourage the nonsmoker not to start. The folder is on sale at 5 cents per copy or $2.50 per 100 copies from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Dr. Chase Named

Dr. James A. Chase, Fort Wayne, has been appointed first aid chairman of the Safety Service department of the Allen-Wells Chapter, American Red Cross.

Doctors Elected

Dr. Edward M. Alt, Jr., Munster, Dr. J. L. Ferry, Whiting and Dr. W. J. Fitzpatrick, Munster, have been elected to the Munster Medical Research Foundation board.

New Working Manual for Doctors On Immunizations for Adults

A new working manual for doctors on the subject of immunizations for adults has been published by the American College Health Association. It is a 55-page, spiral-bound booklet entitled "Adult Immunization Guide."

It was printed with the help of a grant from Lederle and covers 19 infectious diseases in the manner which immunizations for infants and children are covered in standard reference sources. Immunization procedures for each of the 19 diseases are considered in terms of indications, immunizing agent, contraindications, primary immunizations, reimmunization, untoward effects and comments.

Write the College at Box 9117, University of Miami Branch, Coral Gables, Florida 33124, for information on securing copies.

Dr. Fitzkee Appointed

Dr. William Fitzkee, Albion, has been named Noble County health officer to fill the unexpired term of the late Dr. Richard Slough, Kendallville.

Dr. Reppert Made Colonel

Dr. Roland L. Reppert, Decatur, president of the Reppert School of Auctioneering, has been appointed an aide-de-camp on the staff of Kentucky governor Edward T. Breathitt. The appointment makes Dr. Reppert a member of the honorable order of Kentucky colonels.

Dr. Brown Attends Fete

Dr. Earl Brown, Indianapolis, and his son attended the World Scout Jamboree held for the first time on U.S. soil at Farragut State Park, Idaho. Dr. Brown has been selected as scoutmaster of Jamboree Troop 38, made up of a majority of Central Indiana scouts. He serves as scoutmaster of Troop 156 in southern Marion county.

Dr. Hostetler Accepts New Post

Dr. Carl M. Hostetler, Goshen, has accepted a position as clinical instructor of medicine at the University of Wisconsin Medical Center, Department of Student Health at Madison, Wis. He will augment a staff of 22 physicians who care for the 32,000 University of Wisconsin students.

"If You Have Emphysema or Chronic Bronchitis" Booklet Now Available

People with emphysema or chronic bronchitis must stop smoking cigarettes, seek out a physician, and follow his advice

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Tuckahoe, N.Y.

if they want to get better. This advice appears in a new publication just released by the National Center for Chronic Disease Control, U.S. Public Health Service.

"If You Have Emphysema or Chronic Bronchitis," prepared by the Center's Chronic Respiratory Diseases Control Program, is designed to help patients understand what causes their shortness of breath, fatigue, coughing, and wheezing, and how to minimize their discomfort. It answers questions patients ask about the effects of climate, altitude, and air pollution and outlines steps physicians take in treating the diseases.

Single copies of "If You Have Emphysema or Chronic Bronchitis," PHS Pub. No. 1726, are available from the Public Health Service, U.S. Department of Health, Education and Welfare, Washington, D.C. 20201. It may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, for 15c a copy, $11.25 per hundred.

Dr. Stander Gets Post

Dr. Richard W. Stander, Indianapolis, former associate professor of obstetrics and gynecology at the Indiana University Medical Center, has been named chairman of the obstetrics and gynecology department at the University of Cincinnati.

Dr. Westerman Serves on HOPE

Dr. Richard L. Westerman, Evansville, has been selected to serve as a volunteer on the S. S. HOPE, Project HOPE hospital ship presently located in Cartagena, Colombia.

Emergency Medical Care Film Available to Teach Attendants

The Public Health Service has a new educational film entitled "Hands of Action" for the training of emergency vehicle operators and ambulance attendants.

It is 16 mm, color, sound and runs for 40 minutes. It is intended for use by an instructor in a training program for emergency personnel. Available for free short-term loan from National Medical Audiovisual Center, Chamblee, Georgia 30005.

Dr. Berman Gives Address

Dr. Jacob K. Berman, Indianapolis, while in Vienna, Austria, recently addressed a session of the Societe Internationale de Chirurgie. He also showed a film entitled "The Balanced Procedure for Surgical Treatment of Hiatal Hernia Complex" that was made in Methodist's graduate medical center. Dr. Berman also showed the film at the University of Denmark.

Dr. Silver is Speaker

Dr. Richard A. Silver, Indianapolis radiologist, immediate past president of the Indiana Division of the American Cancer Society, spoke at the recent annual meeting of the Madison County unit. Dr. Silver spoke on "Progress in Cancer Treatment."◄

APPLICATION FOR TERM LIFE INSURANCE
to PROFESSIONAL LIFE & CASUALTY COMPANY, CHICAGO, ILLINOIS

1. Full Name of Applicant_____

Date of Birth_____ Place of Birth_____
Mo. Day Year City State

2. Height_____ Weight_____ 3. ☐ Male, ☐ Female 4. ☐ Married, ☐ Single, ☐ Divorced, ☐ Separated

5. PERMANENT MAILING ADDRESS:_____ Street Address
_____ City _____ State _____ Zip _____ (No. of Yrs.)

6. Medical School:_____ Name _____ City & State

Date Entered Medical School_____

7. AMOUNT OF INSURANCE: 10 YEAR CONVERTIBLE* TERM
☐ $10,000.00
☐ $20,000.00

OR 15 YEAR CONVERTIBLE* TERM
☐ $10,000.00
☐ $20,000.00

Convertible to participating Whole Life Insurance at any time prior to the end of the Term period.

8. PREMIUMS PAYABLE: ☐ Annually ☐ Semi-Annually ☐ Other_____ Premium: $_____

9. DISPOSITION OF ANNUAL DIVIDENDS: ☐ Pay in Cash ☐ Accumulate at Interest ☐ Apply to Premium

10. Beneficiary_____ Name in Full _____ Relationship

11. Do you know of any impairment now existing in your health or physical condition? Yes_____ No_____ If "yes" give particulars_____

12. Have you consulted a physician for illness during the past three years? Yes_____ No_____ If "yes" give particulars_____

I HEREBY APPLY for insurance described above and agree to pay premiums therefor at the rate shown above.
INFORMATION in this application is given to obtain this insurance and is true and complete to the best of my knowledge and belief. The Company shall incur no obligation because of this application unless and until it is approved by the Company and the first premium is paid in full while my health or other conditions affecting my insurability are as described in the application.

Date_____ _____ Signature of Applicant

_____ Licensed Agent

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Start your program of insurance protection today, while premiums are low with a Term-Life Plan that meets today's needs with a protective look towards the future.

Professional Life & Casualty Company which has made a career of serving the life and disability insurance needs of members of the medical community introduces its new Guaranteed Convertible Term-Life Plan developed for students, interns and residents who are commencing a career in the medical profession.

This plan is designed for maximum protection with a nominal premium you can afford, prior to your productive earning years.

The low annual premium provides a level amount of life insurance during a period when you may have real need for the financial protection and benefit of your family and dependents or of anyone financing your education.

ANNUAL DIVIDENDS

This is a 'participating plan' which means you participate in annual dividends to policyholders. You may elect to have your Annual Dividends *paid in cash*, applied to reduce your annual premium or accumulated at interest (see item 9 of application).

LOW, FIXED ANNUAL PREMIUM

Your Annual Premium is based on your age at issue (nearest birthday) and remains the same for the duration of the policy. *It cannot be changed by the Company.*

NON-DECREASING COVERAGE

You may select either $10,000 or $20,000 of life insurance. Your insurance will continue for the amount and term you select (10 year or 15 year term period) and *cannot be reduced or terminated by the Company.*

GUARANTEED CONVERSION

Your term policy may be converted to our Participating Whole Life Plan at any time during the policy period *without any restrictions or limitations.*

THE IMPORTANCE OF CONVERSION TO PLC's PARTICIPATING WHOLE LIFE PLAN

Your Term Plan guarantees you the right to obtain PLC's participating Whole Life Plan which has been rated the No. 1 "low net cost" plan by a nationwide statistical service.

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Age At Issue (Nearest Birthday)	10 YEAR TERM Annual	10 YEAR TERM Semi-Annual	15 YEAR TERM Annual	15 YEAR TERM Semi-Annual
21	$33.00	$17.00	$34.00	$17.50
22	33.50	17.50	34.50	18.00
23	34.00	17.50	35.00	18.00
24	34.50	18.00	35.50	18.50
25	35.00	18.00	36.00	18.50
26	35.50	18.50	36.50	19.00
27	36.00	18.50	37.50	19.50
28	36.50	19.00	38.50	20.00
29	37.00	19.50	40.00	21.00
30	37.50	19.50	42.00	22.00

—Premiums for $20,000 Policy are double the above rates
—Premiums for Ages not shown will be provided on request

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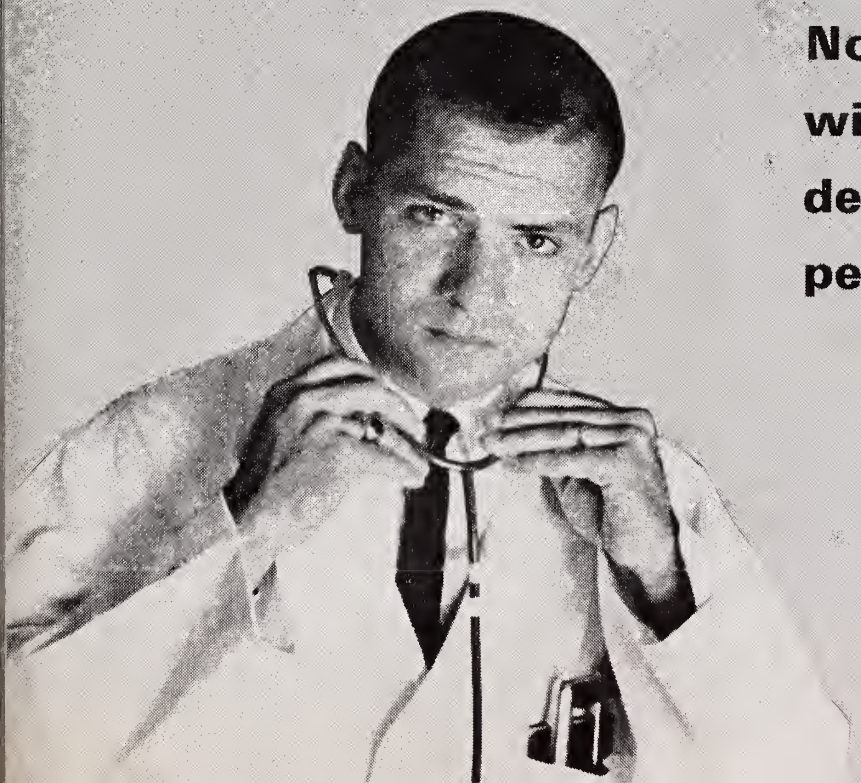

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Annual Meeting Dates of Professional Medical and Allied Organizations

AMERICAN MEDICAL ASSOCIATION ANNUAL CONVENTION
Date June 16-20, 1968
Place San Francisco, Calif.

NORTHERN INDIANA PSYCHIATRIC SOCIETY
Date Fourth Wednesday of every month, September through June
Place For location and program, inquire Beatty Memorial Hospital, Westville

INDIANA NEUROPSYCHIATRIC ASSOCIATION
Date Second Wednesday of the month, October through May, excluding December
Place The Athenaeum, Indianapolis

INDIANA ACADEMY OF GENERAL PRACTICE
Date April 15-17, 1969
Place Evansville

INDIANA ROENTGEN SOCIETY
Date May 5, 1968
Place Indianapolis

AMERICAN COLLEGE OF SURGEONS, INDIANA CHAPTER
Date May 17-18, 1968
Place Stouffer Inn, Indianapolis

INDIANA STATE ASSOCIATION OF MEDICAL ASSISTANTS
Date May 3-5
Place Leland Motor Inn, Richmond

INDIANA ACADEMY OF OPHTHALMOLOGY AND OTOLARYNGOLOGY
Date May 1-2, 1968
Place Culver Inn, Culver

INDIANA STATE MEDICAL ASSOCIATION CONVENTION
Date October 15-18, 1968
Place Fort Wayne

INDIANA PUBLIC HEALTH ASSOCIATION
Date April 30-May 1, 1968
Place Howard Johnson's Motor Lodge, Indianapolis

INDIANA SOCIETY OF ANESTHESIOLOGISTS
Date May 25-26, 1968
Place Marott Hotel, Indianapolis

INDIANA STATE DENTAL ASSOCIATION
Date May 19-20, 1968
Place Murat Theater, Indianapolis

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Pick one for jail.
Pick one to waste away.
Pick three for happiness.

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llion families benefit by child care, family service, youth guidance, health programs, disaster relief and services for the Armed Forces from 31,000 United Way agencies.

INDIANA STATE BOARD OF HEALTH

MONTHLY REPORT — February, 1968

Disease	Feb. 1968	Jan. 1968	Dec. 1967	Feb. 1967	Feb. 1966
Animal Bites	473	253	400	399	326
Chickenpox	611	476	505	456	1029
Conjunctivitis	79	37	59	98	154
Diphtheria	0	0	0	1	0
Dysentery, Unspecified	86	62	124	117	196
Gonorrhea	377	391	461	723	346
Impetigo	94	64	120	73	101
Infectious Hepatitis	43	11	43	85	49
Infectious Mononucleosis	86	57	89	62	97
Influenza	2805	9943	2944	68	1243
Measles					
Rubeola	79	88	35	68	744
Rubella	67	20	27	58	256
Meningitis, Meningococcal	6	4	1	4	7
Meningitis, Other	2	3	1	9	4
Mumps	556	416	337	702	436
Pertussis (Whooping Cough)	6	8	7	10	7
Pneumonia	345	246	204	329	310
Poliomyelitis	0	0	0	0	0
Streptococcal Infections	897	675	692	953	2287
Syphilis					
Primary & Secondary	27	19	28	7	8
All Other Syphilis	81	50	106	68	76
Tinea Capitis	19	12	8	19	11
Tuberculosis (Active)	81	40	88	113	62

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1. SUMMARY

ANDROID	GOOD TO EXCELLENT 75%
PLACEBO	20%

2. Forty cases reported.
3. Cites synergism between androgen and thyroid.
4. No side effects in patients treated.
5. Alleviation of fatigue noted
6. Case histories on 4 patients.
7. Although psychotherapy still needed, role of chemotherapy cannot be disputed.

**"Sexual impotence treatment with methyl testosterone – thyroid (ANDROID) a double blind study" – Montesano, Evangelista: Clinical Medicine, April 1966.*

CONTRAINDICATIONS—Methyl testosterone is not to be used in malignancy of reproductive organs in male, coronary heart disease. Thyroid is not to be used in heart disease, hypertension unless the metabolic rate is low.

Choice of 4 strengths

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Thiamine HCL .....10 mg.
Dose: 1 tablet 3 times daily.
Available: Bottles of 100, 500, 1000.

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Each red tablet contains:
Methyl Testosterone ..5.0 mg.
Thyroid Ext. (½ gr.) ...30 mg.
Glutamic Acid .....50 mg.
Thiamine HCL .....10 mg.
Dose: 1 tablet 3 times daily.
Available: Bottles of 100, 500, 1000.

Android-X
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Each orange tablet contains:
Methyl Testosterone .12.5 mg.
Thyroid Ext. (1 gr.) ....64 mg.
Glutamic Acid .....50 mg.
Thiamine HCL .....10 mg.
Dose: 1 or 2 tablets daily.
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WITH HIGH POTENCY B-COMPLEX AND VITAMIN C

Each white tablet contains:
Methyl Testosterone ..2.5 mg.
Thyroid Ext. (¼ gr.) ...15 mg.
Ascorbic Acid (Vit. C) .250 mg.
Thiamine HCL .....25 mg.
Glutamic Acid .....100 mg.
Pyridoxine HCL .....5 mg.
Niacinamide .....75 mg.
Calcium Pantothenate .10 mg.
Vitamin B-12 .....2.5 mcg.
Riboflavin .....5 mg.
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Android-E

Each Tablet Contains:
Methyl Testosterone ..... 2.5 mg.
Ethinyl Estradiol ..... 0.02 mg.
Thyroid Ext. (1/6 gr.) ..... 10 mg.
Thiamine Hydrochloride ..... 10 mg.
Glutamic Acid ..... 50 mg.

INDICATIONS: Advantage is taken of the anabolic action of ANDROID without its virilizing effect. Estrogen balances the androgen—only steroid effect remains. Geriatrics, post-operative and debilitating disease, osteoporosis. **DOSE:** One tablet t.i.d. Female patients should have a rest period 5 to 7 days after 21 days of medication. **SIDE EFFECTS:** In the female, excessive dosage may produce virilizing effects of most androgens: hoarseness, hirsutism, enlarged clitoris. Symptoms can be avoided by keeping the dosage below 300 mg. of testosterone per month. **CONTRA-INDICATIONS:** See Android. Ethinyl estradiol is not to be used in latent malignancy of reproductive organs or mammary glands.

Abbott Antihypertensive Building Blocks

A simplified approach to the practical management of hypertension

Enduron: (methyclothiazide) A basic building block for mild hypertensives

Excellent day-long Na^+ output, yet easy on the K^+

Enduron provides an excellent starting therapy. Your patient's sodium excretion is greatly enhanced. Yet potassium loss is low.

The therapeutic action is smooth, and persists for a full 24 hours. With Enduron you can prescribe convenient once-a-day dosage without skimping your patients on day-long thiazide effectiveness.

Of course, as with all thiazides, supplemental dietary potassium should also be considered.

Use Enduron as a basic therapy in patients with mild to moderate hypertension. A single 5-mg. tablet each day is ample in most cases.

Once a day, every day

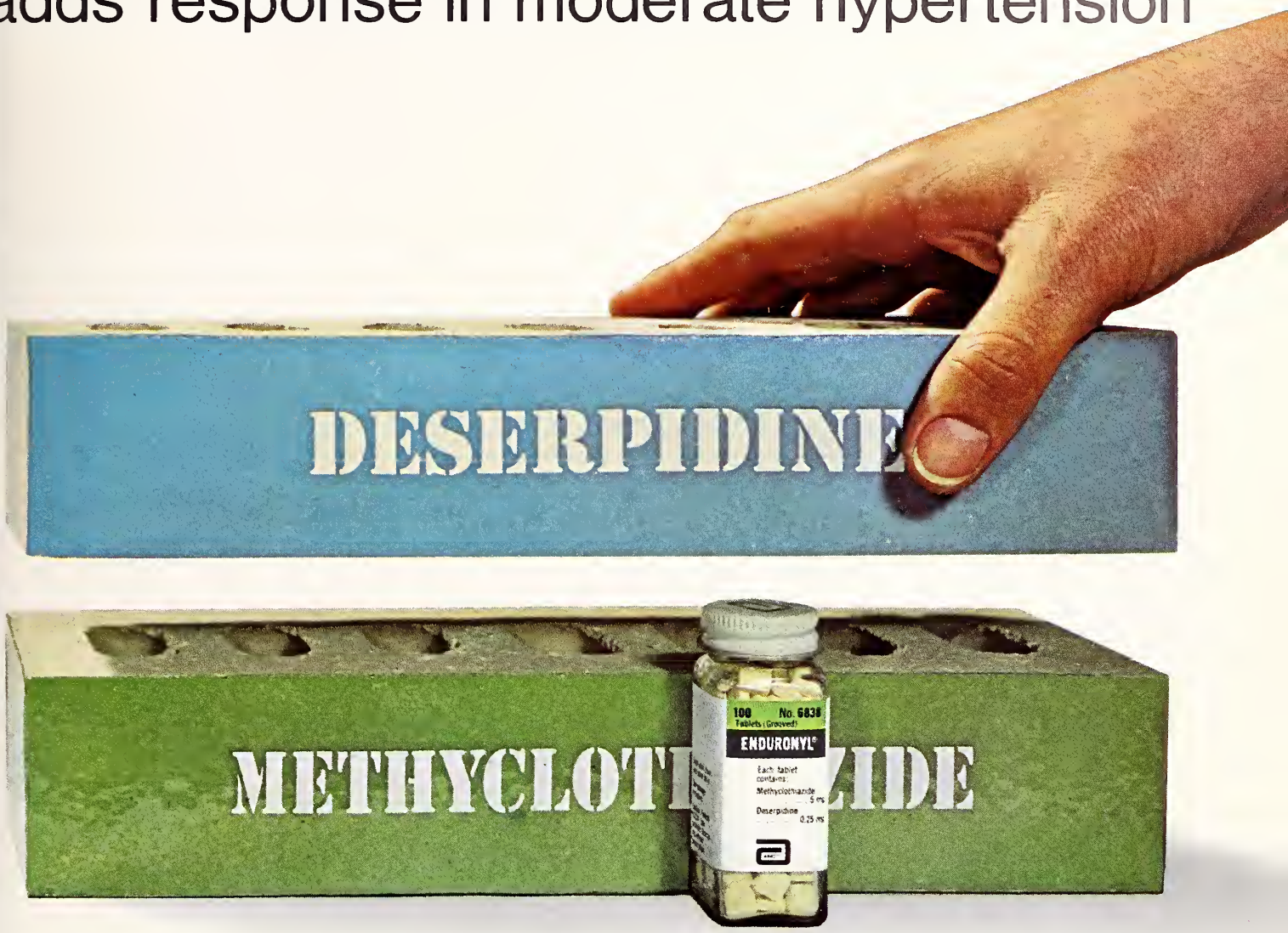
ENDURON®

METHYCLOTHIAZIDE

MILD TO MODERATE TO SEVERE

See Brief Summary on final page of advertisement

Enduronyl: Its deserpidine component adds response in moderate hypertension



Less frequent rauwolfia side effects than with reserpine

When you wish to build further response, consider shifting to Enduronyl.

Enduronyl adds a building block of *deserpidine*. This is a purified rauwolfia alkaloid available only from Abbott. It adds good antihypertensive and tranquilizing activity. Yet its incidence of untoward effects, particularly lethargy and depression, is lower than with reserpine.

Enduronyl is available plain or Forte. The latter provides its variation where most helpful, by doubling the deserpidine.

Use Enduronyl for patients throughout the broad range of mild to moderately severe hypertension.

Once a day, every day

ENDURONYL®

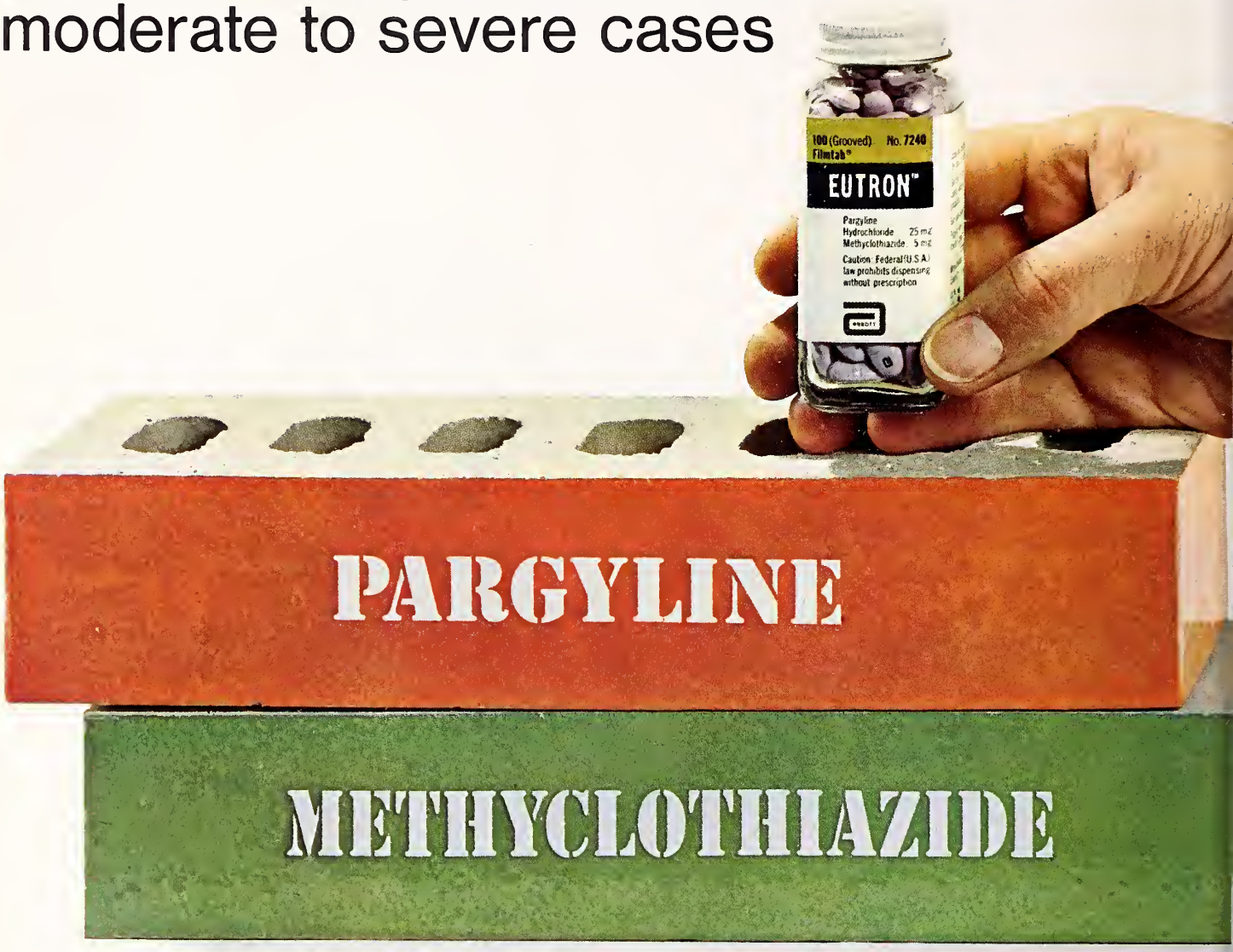
METHYCLOTHIAZIDE 5 mg. with DESERPIDINE 0.25 mg. or (FORTE) 0.5 mg.

MILD TO MODERATE TO SEVERE

See Brief Summary on final page of advertisement

801094

Eutron: A unique combination for handling moderate to severe cases



Affords almost uniform diastolic reduction in all body positions

Eutron lowers diastolic pressures nearly equally, whether your patient is standing up or lying down.

Thus, in clinical trials, average *standing* diastolic readings were reduced from 112 pre-treatment to 90 post-treatment; *sitting* from 115 to 95; and *recumbent* from 112 to 94.

Note that following Eutron, the diastolic reductions were nearly alike in all three body positions.

Use Eutron for managing your moderate to severe cases. Its building blocks enhance each other; hence lesser doses often suffice.

Once a day, every day

EUTRON™

PARGYLINE HYDROCHLORIDE 25 mg.
with METHYCLOTHIAZIDE 5 mg.

MILD TO MODERATE TO SEVERE

See Brief Summary on final page of advertisement

801094

ENDURON® | ENDURONYL®

METHYCLOTHIAZIDE

Each tablet contains Methyclothiazide 5 mg. with Deserpidine 0.25 mg. or 0.5 mg

Indications: Edema and mild to moderate hypertension (Enduron), and mild to moderately severe hypertension (Enduronyl). More potent agents, if added, can be given at reduced dosage.

Contraindications: Sensitivity to thiazides; severe renal disease (except nephrosis) or shutdown; severe hepatic disease or impending hepatic coma (hepatic coma due to hypokalemia has been reported in patients on thiazides). Do not use Enduronyl in severe mental depression, suicidal tendencies, active peptic ulcer, or ulcerative colitis.

Warnings: Consider possible sensitivity where there is history of allergy or asthma. If added potassium is indicated, dietary supplementation is recommended. Reserve enteric-coated potassium tablets for cautious use only when necessary, as they may induce serious or fatal small bowel lesions (stenosis with or without ulceration), cause obstruction, hemorrhage, and perforation often requiring surgery; discontinue them immediately if abdominal pain, distention, nausea, vomiting, or g.i. bleeding occurs. Neither Enduron nor Enduronyl contains added potassium.

Precautions: Use thiazides cautiously in severe renal dysfunction, impaired hepatic function or progressive liver disease; also in pregnancy (bone marrow depression, thrombocytopenia, and altered carbohydrate metabolism have been reported in certain newborn). In surgery, thiazides may reduce response to vasopressors, and increase response to tubocurarine. Antihypertensive response may be enhanced following sympathectomy. Watch for electrolyte imbalance (e.g., hyponatremia) in all patients. In hypokalemia (especially in digitalized patients) give supplemental potassium. In hypochloremic alkalosis, give supplemental chloride.

Use rauwolfias with caution in patients with history of peptic ulcer. Rauwolfias with anesthetics may produce hypotension and bradycardia. Discontinue Enduronyl two weeks before elective surgery. Consider vagal blocking agents during emergency surgery. In epilepsy, adjust anticonvulsant dosage. In electroshock, shorten stimulus strength and duration. In occasional patients with depressive tendencies, rauwolfias may precipitate severe mental depression that usually disappears when drug is stopped.

Adverse Reactions: Thiazide reaction include blood dyscrasias (thrombocytopenia with purpura, agranulocytosis, aplastic anemia); elevation of BUN, serum uric acid or blood sugar; anorexia, nausea, vomiting, diarrhea, headache, dizziness, paresthesia, weakness, skin rash, photosensitivity, jaundice, symtomatic gout, and pancreatitis. Cutaneous vasculitis in the elderly has been reported with other thiazides. Adverse effects with deserpidine are qualitatively similar to those with reserpine, but their incidence is lower. These include nasal stuffiness, abdominal cramps or diarrhea, nausea, headache, weight gain, reduced libido and potency, peptic ulcer aggravation, epistaxis, skin eruption, asthma in susceptible patients, electrolyte imbalance, excessive salivation, and a reversible Parkinson's syndrome. Excessive drowsiness, fatigue, weakness, and nightmares may signal mental depression. Thrombocytopenia, purpura, and a symptom manifested by dull sensorium, deafness, uveitis, glaucoma, and optic atrophy are rare allergic reactions to other rauwolfias. Hypotension from antihypertensive agents may precipitate angina attacks in susceptible individuals. Usually adverse reactions disappear when drug is withdrawn.

EUTRON™

Each tablet contains Pargyline Hydrochloride 25 mg. with Methyclothiazide 5 mg.

Indications: For treatment of patients with moderate to severe hypertension, especially those with severe diastolic hypertension. Not recommended for patients with mild or labile hypertension amendable to therapy with sedatives and/or thiazide diuretics alone. It is desirable to establish the dosage of Eutron by administering component drugs separately.

TM-TRADEMARK

Contraindications: Pheochromocytoma, advanced renal disease, increasing renal dysfunction, paranoid schizophrenia and hyperthyroidism. Hepatic coma has been reported as consequence of hypokalemia with thiazide therapy. Until further experience is gained not recommended for patients with malignant hypertension, children under 12, or pregnant patients.

Concomitant use of the following is contraindicated: other monoamine oxidase inhibitors; parenteral forms of reserpine or guanethidine; sympathomimetic drugs; foods high in tyramine such as cheese; imipramine and amitriptyline, or similar antidepressants; methyldopa. 2 week interval should separate therapy and use of these agents.

Methyclothiazide is contraindicated in patients with known sensitivity to thiazides.

Warnings: Pargyline hydrochloride is a monoamine oxidase inhibitor. Warn patients against eating cheese, and using alcohol, proprietary drugs or other medication without the knowledge of the physician. When indicated, alcohol, narcotics (meperidine should be avoided), antihistamines, barbiturates, chloral hydrate, and other hypnotics, sedatives, tranquilizers, or caffeine, may be used cautiously in reduced dosage. In emergency surgery ¼ to ⅕ the usual dose of narcotics, analgesics, and other premedications should be used avoiding parenteral administration where possible. Carefully adjust dose of anesthetics to response of patient. Withdraw pargyline two weeks before elective surgery.

Warn patients about the possibility of postural hypotension. Those with angina or coronary artery disease should not increase physical activity with an improvement in well being. Pargyline may lower blood sugar.

Avoid use of enteric-coated potassium tablets, as these may induce serious or fatal small-bowel lesions consisting of stenosis with or without ulceration. These small-bowel lesions have caused obstruction, hemorrhage and perforation frequently requiring surgery. Medication should be discontinued immediately if abdominal pain, distension, nausea, vomiting or GI bleeding occurs. These products contain no added potassium salts and if added potassium intake is desired, dietary supplementation is recommended. Coated potassium tablets should be reserved for cautious use when adequate dietary supplementation is impractical. In patients with a history of allergy or asthma the possibility of sensitivity reactions should be considered.

Precautions: Measure blood pressure while patient is standing to determine antihypertensive effect. Use with caution in hyperactive or hyperexcitable persons. Such persons may show increased restlessness and agitation. Withdraw drug during acute febrile illness. Watch patients with impaired renal function for increasing drug effects or elevation of BUN and other evidence of progressive renal failure; withdraw drug if such alterations persist and progress. Use with caution in patients with liver disease. As with all new drugs, complete blood counts, urinalyses, and liver function tests should be performed periodically. With prolonged therapy, examine patients for change in color perception, visual fields and fundi. Also reported have been: blood dyscrasias including thrombocytopenia with purpura, agranulocytosis and aplastic anemia; elevations of BUN, serum uric acid, or blood sugar. Symptomatic gout may be induced. In surgical patients thiazides may reduce response to vasopressors and increase response to tubocurarine.

Adverse Reactions: Pargyline may be associated with orthostatic hypotension. Mild constipation, slight edema, dry mouth, sweating, increased appetite, arthralgia, nausea and vomiting, headache, insomnia, difficulty in micturition, nightmares, impotence, delayed ejaculation, rash, and purpura have been encountered with pargyline. Hyperexcitability, increased neuromuscular activity (muscle twitching) and other extrapyramidal symptoms have been reported in a few patients with reduced cardiac reserve.

During intensive or prolonged therapy, guard against hypochloremic alkalosis and hypokalemia (especially the latter if patient is on digitalis). Observe all patients for signs of hyponatremia ("low salt" syndrome).

Reported thiazide reactions also include anorexia, nausea, vomiting, diarrhea, headache, dizziness, paresthesia, weakness, skin rash, photosensitivity, jaundice, and pancreatitis. Nocturia has been observed with the combination.

801438

ABBOTT

1968 Summer Camp for Diabetic Children July 14-August 4 in Wisconsin

The Summer Camp for Diabetic Children will be conducted for the 20th year under the auspices of the Diabetes Association of Greater Chicago from July 14 through August 4, 1968 at Holiday Home, Lake Geneva, Wisconsin. Boys and girls from eight through thirteen years of age are eligible.

As in previous years, the camp will be staffed by resident physicians, a nurse, dietitians and laboratory technicians, in addition to the regular counseling and domestic staff of Holiday Home.

Rates for summer camp are arranged in accordance with individual circumstances. Applications may be obtained from, and inquiries should be directed to: Diabetes Association of Greater Chicago, 620 N. Michigan Ave., Chicago, Illinois 60611, 943-8668.

Congress on Medicine and Insurance Preceding AMA Annual Meeting

A congress on medicine and insurance will be held on June 15 at the Fairmont Hotel, San Francisco. It is sponsored by the Association of Life Insurance Medical Directors of America and the AMA and will immediately precede the AMA annual meeting which starts June 16. All physicians who are interested are urged to attend.

University of Colorado School Of Medicine Postgraduate Course

The University of Colorado School of Medicine announces a four-day postgraduate course in Obstetrics and Gynecology, to be held at the Stanley Hotel in Estes Park, Colorado, June 17 through 20. This course is designed primarily for the obstetrician-gynecologist and topics to be presented include fetal distress, uterine dysfunction, treatment of ovarian carcinoma, chemotherapy, management of ovarian masses, and the role of radical surgery for gynecological malignancies.

Three eminent guest speakers will participate: Louis M. Hellman, M.D., Brooklyn, New York; Charles A. Hunter, M.D., Seattle, Washington; and Richard F. Mattingly, M.D., Milwaukee, Wisconsin. Tuition and registration fees are $80.00.

For further information and a detailed program, write to: The Office of Postgraduate Medical Education, University of Colorado School of Medicine, 4200 E. Ninth Ave., Denver, Colorado 80220.

Doctors and **Nurses**

White Conductive Shoes for surgery
—Nurses & Doctors shoes for all occasions
—ORTHOPEDIC shoes for
Men-Women-Children

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54th Annual Postgraduate Course In Ophthalmology set for July 8-11

The Fifty-Fourth Annual Postgraduate Course in Ophthalmology and the summer convention of the Colorado Ophthalmological Society will be held at the Stanley Hotel in Estes Park, Colorado, on July 8 to 11.

Tuition for the four days is $80. Detailed program will be available May 1. For program and housing information write The Office of Postgraduate Medical Education, 4200 E. Ninth Ave., Denver 80220.

National Society for Prevention Of Blindness Annual Conference

The National Society for the Prevention of Blindness will hold its annual conference at the Roosevelt Hotel in New York City on November 20, 21 and 22, and at the same time will commemorate its 60th anniversary.

Details on topics and speakers may be obtained later by writing to the Society at 79 Madison Ave., New York City 10016.

Denver Children's Hospital Announces Summer Clinics in June

Children's Hospital, Denver, is holding its Summer Clinics at Vail on June 26, 27, 28. Guest faculty will include Virginia Apgar, M.D., M.P.H., The National Foundation; Louis K. Diamond, M.D., Harvard University; Robert G. Frazier, M.D., The American Academy of Pediatrics; Harry Medovy, M.D., F.R.C.P.(C), University of Manitoba; Paul Wehrle, M.D., University of Southern California. There will be morning seminars and lectures followed by afternoons of leisure in the Rocky Mountains.

Fee is $40.00. Guest reservations will be accepted in order of receipt of registration fee. Registration will be limited. Write: Department of Continuing Education, Children's Hospital, Nineteenth Avenue at Downing, Denver, Colorado 80218.

"Eye Disease — Where Do We Stand?" Course Will be May 8 in Chicago

The third annual "Frontiers of Medicine" series will present a course on "Eye Disease — Where Do We Stand?" May 8 at the University of Chicago Hospitals and Clinics.

Further details on the programs and information on registration may be obtained by writing David M. G. Huntington, Administrative Coordinator, Committee on Continuing Medical Education, the University of Chicago, 950 E. 59th St., Chicago 60637.

Cook County Graduate School of Medicine Announces Education Course

The Cook County Graduate School of Medicine announces a two-week intensive continuing education course in The Neuromuscular Diseases of Children with Special Emphasis on Management, to be given by Dr. Meyer A. Perlstein for the period of June 3 - 14, 1968.

This is an intensive didactic and clinical course designed for pediatricians, orthopedists, neurologists, psychiatrists and physiatrists interested in the care and treatment of children with neuromuscular handicaps. Emphasis will be placed on the practical clinical aspects of treatment and rehabilitation procedures. The course will include trips to demonstration clinics and treatment centers.

The fee for the course is $315, and since registration will be limited, applications should be made as far in advance as possible. For further information, write to the Registrar, Cook County Graduate School of Medicine, 707 S. Wood St., Chicago, Illinois 60612.

Annual Otolaryngologic Assembly To be October 12 through 18, 1968

The annual Otolaryngologic Assembly of 1968 will be held October 12 through 18, in the Illinois Eye and Ear Infirmary at the Medical Center, Chicago. The Department of Otolaryngology of the College of Medicine of the University of Illinois offers a condensed postgraduate basic and clinical program for practicing otolaryngologists under the direction of Dr. Emanuel M. Skolnik. It is designed to bring to specialists current information in medical and surgical otorhinolaryngology.

A separate, but correlated course entitled "Head and Neck Radiology Conference" under the guidance of Doctor Galdino E. Valvassori, will be conducted by the department of radiology for two full days just preceding the assembly, Thursday and Friday, October 10 and 11, 1968.

Interested physicians should direct communications to the mailing address: Department of Otolaryngology, P. O. Box 6998, Chicago, Illinois 60680.

Continuation Course in Clinical Electroencephalography September 9-11

A continuation course in Clinical Electroencephalography will be held September 9-11, 1968 in San Francisco, California. The course is designed as a basic review of the applications of the EEG to clinical medical practice, and is sponsored by the American EEG Society (aided by a grant from the National Center for Chronic Disease Control, U.S. Public Health Service).

The faculty will include Drs. Reginald G. Bickford, Rochester, Minn.; David D. Daly, Dallas, Tex.; Robert J. Ellingson, Omaha, Neb.; Eli S. Goldensohn, New York, N.Y.; Charles E. Henry, Cleveland, Ohio; Peter Kellaway, Houston, Tex.; John R. Knott, Iowa City, Iowa; Michael G. Saunders, Winnipeg, Canada; Daniel Silverman, Philadelphia, Pa.: Richard D. Walter, Los Angeles, Calif.

Inquiries about further details of the course or registration procedure should be addressed to Dr. Donald W. Klass, EEG Course Director, Mayo Clinic, Rochester, Minnesota 55901.

Postgraduate Medical Course in Care of Spinal Cord Injury Patients

A postgraduate medical course in the care of spinal cord injury patients will be offered to 30 selected physicians in Long Beach, Calif., April 29 through May 3.

Experts in spinal cord injury care from VA's specialized centers will lecture and demonstrate treatment technics on all aspects of the emergency and early care, rehabilitation and continuing care of the spinal cord injury patient.

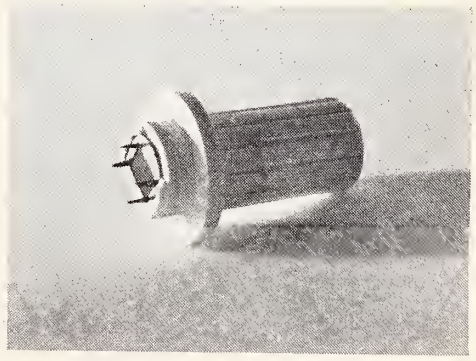
The course is being conducted without charge to bring the benefits of VA's exceptional experience in this highly specialized field of medicine to the entire medical community.

The Long Beach course is the first of a series that will be conducted twice yearly. The second is tentatively scheduled for West Roxbury, N.Y., later this year.

Applications for attendance may be made to Veterans Administration, Chief of the Spinal Cord Injury Staff, 810 Vermont Ave., N.W., Washington, D.C. 20420. Eligibility to attend the free course extends to urologists, general surgeons, neurosurgeons, orthopedic surgeons, plastic surgeons, neurologists and internal medicine specialists. ◄

To fight TB- find it first!

Make tuberculin testing routine with every physical examination.



TUBERCULIN, TINE TEST (Rosenthal)

Side effects are possible but rare: vesiculation, ulceration, or necrosis at test site. Contraindications: none, but use with caution in active tuberculosis. Available in 5's and 25's.

Lederle

330-8/61.5

County, District News

Adams

New officers of the Adams County Medical Society are: Drs. Arthur H. Girod, president and Harold F. Zwick, secretary-treasurer. Both are from Decatur.

Bartholomew-Brown

Mr. Robert Garton of Columbus, possible candidate for Congress, spoke at the Feb. 14 meeting of the Bartholomew-Brown County Medical Society.

Cass

Dr. Joseph Bean has been elected president of the Cass County Medical Society. Other new officers are: Drs. Jay King, vice-president and Edward L. TerBush, secretary-treasurer.

Clay

Allan C. Erickson, Program Director of the American Cancer Society, Indiana Division, Inc., spoke at a "Self Breast Examination Seminar" Feb. 6 at the Clay County Medical Society.

Clinton

The 1968 officers of the Clinton County Medical Society are: Drs. Bruce A. Work, president and George K. Hammersley, secretary-treasurer. Both of the new officers are from Frankfort.

Daviess-Martin

Field secretary Robert Amick visited the Daviess-Martin County Medical Society Feb. 19 to discuss the changing practice of medicine. Five members attended.

Dearborn-Ohio

Dr. Jane Shutt, psychiatrist and medical director of the Mental Health Clinic in Dearborn County, spoke on "Operations of the New Community Mental Health Clinic" at the Feb. 1 meeting of the Dearborn-Ohio County Medical Society.

Elkhart

"Tuberculosis Today —Latest in Treatment and Control" was the topic of Dr. Norman J. Wilson when he spoke at the Feb. 1 meeting of the Elkhart County Medical Society. Dr. Wilson is medical director of the Lake County TB Sanitorium in Crown Point. Sixty-one members attended.

Fulton

A discussion on intensive coronary care units highlighted the Feb. 2 meeting of the Fulton County Medical Society. Eight members attended.

Henry

"Cardiac Pacemakers" was the subject of a speech given by Dr. Robert D. King, Indianapolis, when he spoke at the Feb. 15 meeting of the Henry County Medical Society.

Howard

A film on "Emergency Tracheostomy" was shown at the Feb. 6 meeting of the Howard County Medical Society. New officers of the society for 1968 are: Drs. Robert L. Michael, president; J. L. Frazier, first vice-president; George Kremers, second vice-president and Jerome F. Doss, secretary-treasurer. All of the officers are from Kokomo.

Jefferson-Switzerland

Dr. Elton Heaton is the new president; Dr. Theodore C. C. Fong the vice-president and Dr. Ott B. McAtee the secretary-treasurer of the Jefferson-Switzerland County Medical Society.

Johnson

New secretary of the Johnson County Medical Society is Dr. Charles Link, Greenwood.

Knox

The 1968 officers of the Knox County Medical Society include: Drs. B. K. Black, president; C. L. Miller, president-elect; J. S. Murray, secretary and R. J. Jacqmain, treasurer.

Montgomery

The Montgomery County Medical Society met Feb. 15 to hear Dr. Clifford C. Taylor, Indianapolis, discuss "Tomography of the Temporal Bone." Twenty-three members attended.

Randolph

Dr. Howard W. Koch, Winchester, is the new president of the Randolph County Medical Society. Other new officers are: Drs. Henry Shallenberger, Modoc, vice-president and Paul W. Sparks, Winchester, secretary-treasurer.

Rush

Members of the Rush County Medical Society have elected the following as their new officers: Drs. Donald I. Dean, president; Marvin G. Norris, vice-president and Charles E. Sheets, secretary-treasurer. Drs. Dean and Norris are from Rushville; Dr. Sheets is from Manilla.

Starke

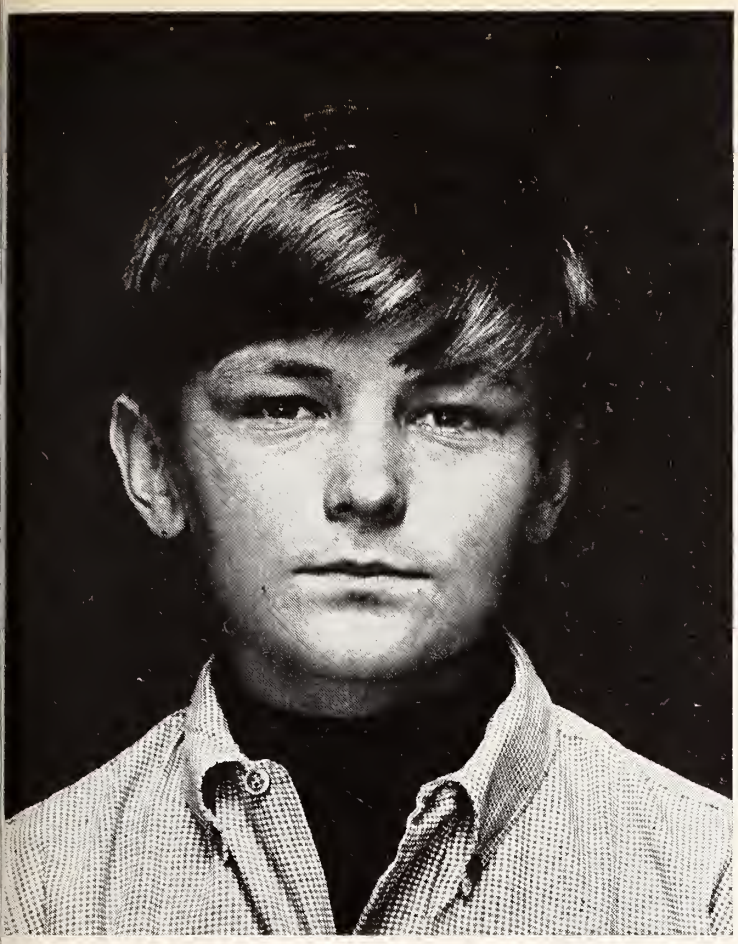
Dr. Earl Leinbach, Hamlet, is the new president and Dr. Allen Palmer, Knox, the new secretary-treasurer of the Starke County Medical Society.

Vanderburgh

The First District Academy of General Practice annual Road Show visited the Vanderburgh County Medical Society Feb. 8 in Evansville.

Washington

The Washington County Medical Society has the following new officers: Drs. E. R. Apple, president; Dr. Roy L. Fultz, vice-president and Dr. Truman L. Chastain, secretary-treasurer. All of the new officers are from Salem. ◄



How to turn a 14-year-old boy into a hardened criminal.

Just forget your keys in your car one day.

Tempt some fourteen-year-old boy into going for a joyride.

Oh, he could be a good kid — just weak.

And taking your car might be the first time he's ever broken the law.

But the minute he hops behind that wheel and turns the key, his life may be ruined.

He'll drive around for a few hours, endangering the life of every man, woman and child who crosses his path.

He might be caught the very first time he takes a car. Or if he's not caught by the police he'll leave your car somewhere and decide to do it again, and again, until the day he does get caught.

Teen-agers steal more than 1,000 cars every day.

The U. S. Department of Justice and your state and local law-enforcement agencies are concerned.

They know that taking a car for a joyride is just the first step.

Our prisons are filled with men who started out this way. They went on to become thieves, muggers, and even killers.

You can do something to help solve this terrible problem.

Whenever you get out of your car, even for a second, take your keys. Lock your car.

Every time you do this you may keep a good boy from going bad.

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Don't help a good boy go bad. Lock your car. Take your keys.

Your Contributions Are Needed . . .

SUPPORT THESE PROGRAMS OF THE AMA-ERF

- *Funds for Medical Schools* -- Contributions may be designated for one particular school. Undesignated contributions will be distributed equally among all medical schools. No restrictions are placed on the use made of this money by the schools.
- *Loan Guarantee Fund* -- Provides guaranteed loans to medical students, interns and residents. For every dollar in the fund, the private banking industry loans $12.50, at a maximum rate of 6% simple interest.
- *Honors and Scholarship Program* -- Designed to attract students of high promise to careers in medicine—meetings, personal contacts and written materials will be employed. Medical school scholarships will be available to those who need them.
- *Undesignated Contributions* -- Money not designated for any specific AMA-ERF program will be placed in the general fund and the Board of Directors will decide on its use, depending upon need.

AMA-ERF

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Education and Research Foundation
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Chicago 10, Illinois

COMMERCIAL ANNOUNCEMENTS

BUY AND TRY: Wye Plantation Aberdeen-Angus frozen semen from Advanced Register P.R.I. sires officially gaining over four pounds per day or whose 365-day weights are above 1,200 pounds. (Performance tested sires always for sale.) WYE PLANTATION, Queenstown, Maryland 21658. Telephones: 301-827-7166 or 301-827-7160.

PARTNER WANTED: General practice; M.D. in early 30's in central Indiana town of 12,000 (less than 30 miles from Indianapolis) desires to share a good income, active family practice. A progressive town with a well-equipped, 100-bed hospital and a good medical atmosphere. New ultra modern office. Write Box 343, The Journal, ISMA, 3935 N. Meridian St., Indianapolis, Ind. 46208.

LOCUM TENENS WANTED: May and June, 1968, for general practice, including OB and minor surgery. Three fine hospitals; all specialties available for consultation. $1,500 a month. Write R. B. Juergens, M.D., 1724 Prairie Lane, Fort Wayne, Ind., or call 219-748-0608.

WANTED: General practitioners, anesthesiologist, urologist, obstetrician, orthopedist and pediatrician needed in growing community of 15,000. Service area 25,000. Present 83-bed general hospital. New 100+ bed automated hospital to be completed within two years. City has excellent industry, school system, and recreational activities. 45 minutes from Madison or Milwaukee. Future unusually promising. For more information contact: Administrator, Watertown Memorial Hospital, Watertown, Wis.

PEDIATRICIAN: to join established department of pediatrics in 17-man midwestern group. Excellent opportunity in a growing-dynamic clinic with early partnership. Town of 33,000 with two hospitals and excellent schools. Clinic staff enjoys regular vacations and time off for study. Write Box 348, The Journal, ISMA, 3935 N. Meridian St., Indianapolis, Indiana 46208.

FOR SALE: Clinic and residence combination in Jasper. Property consists of a two-story brick southern colonial house located one block from hospital. Building has a total of 18 rooms and two baths down; 11 rooms and two baths upstairs. Large business potential with approximately 50,000 persons in a 30-mile radius. Sixty manufacturing and processing plants in this town of 8,000. This clinic has been set up with two doctors and could possibly equip three doctors. Financing arrangements can be made to suit prospective buyer. Contact Mr. Gene A. Thieman, Thieman Realty & Insurance, 106 West 7th St., Box 331, Jasper, Ind. 47546.

WANTED: Used, discarded, or obsolete small medical equipment for use by the Episcopal Church of Haiti. This equipment will be used for a new hospital-dispensary in this poverty-stricken country. All donations are tax deductible. Please call: G. C. Boling, M.D., at 251-0224, or 251-6659, or ship to 1440 E. 46th St., Indianapolis 46205.

WANTED: In a college community, an associate or partner for a large medical practice. No surgery or OB. General practice can be done if desired. X-ray and laboratory facilities in the office. If desired, will consider sale. Write Box 344, The Journal, ISMA, 3935 N. Meridian St., Indianapolis, Ind. 46208.

FOR SALE: Medical practice in northern Indiana lake region. Association with two other G.P.'s in modern, fully furnished and equipped office, with lab, x-ray and pharmacy. Write Box 347, The Journal, ISMA, 3935 N. Meridian St., Indianapolis, Ind. 46208.

EMERGENCY ROOM PHYSICIAN: Excellent opportunity for young physician interested in full-time practice of emergency room care. Join a physician group responsible for the emergency service of two major Cincinnati hospitals. Remuneration on a fee-for-service basis with guaranteed minimum. Must have or be eligible for Ohio license. Send resume to P. O. Box 36163, Cincinnati, Ohio 45236.

ANESTHESIOLOGIST: Part-time, solo, fee-for-service, board qualified. Any area considered. Also interested in inhalation therapy consultation, therapeutic and diagnostic blocks. Only offers of interest answered. Write Box 349, The Journal, ISMA, 3935 N. Meridian St., Indianapolis, Ind. 46208.

CHIEF RADIOLOGIST: Board certified, needed for 200-bed hospital, no technician school, vicinity $60-$65,000. Prefer 30's-40's. Indiana Medical Bureau, 816 Hume Mansur Bldg., Indianapolis, Ind. Licensed Employment Agency.

SEVENTEEN-MAN Wisconsin group located in college community of 40,000 with excellent hospital facilities is seeking additional associates in the following areas:

1. Internal Medicine
2. Urology
3. General Surgery
4. General Practice

For further information, please contact D. R. Griffith, M.D., Midelfart Clinic, Eau Claire, Wis. 54701.

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Tired of the urban rat race?
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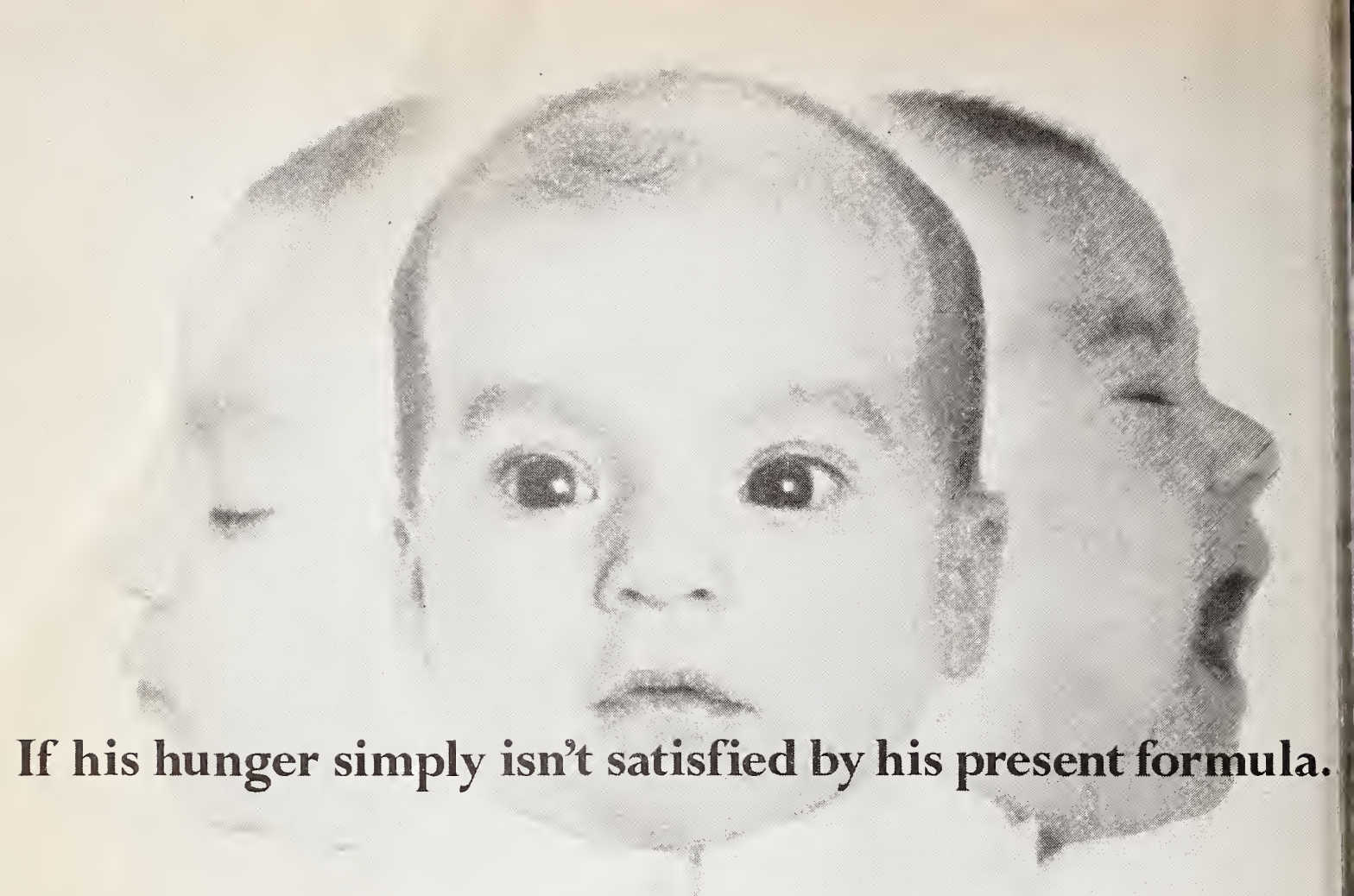

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A simplified approach to the practical management of hypertension

Enduron: (methyclothiazide) A basic building block for mild hypertensives

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Enduron provides an excellent starting therapy. Your patient's sodium excretion is greatly enhanced. Yet potassium loss is low.

The therapeutic action is smooth, and persists for a full 24 hours. With Enduron you can prescribe convenient once-a-day dosage without skimping your patients on day-long thiazide effectiveness.

Of course, as with all thiazides, supplemental dietary potassium should also be considered.

Use Enduron as a basic therapy in patients with mild to moderate hypertension. A single 5-mg. tablet each day is ample in most cases.

Once a day, every day

ENDURON®

METHYCLOTHIAZIDE

MILD TO MODERATE TO SEVERE

See Brief Summary on final page of advertisement

Enduronyl: Its deserpidine component adds response in moderate hypertension

Less frequent rauwolfia side effects than with reserpine

When you wish to build further response, consider shifting to Enduronyl.

Enduronyl adds a building block of *deserpidine*. This is a purified rauwolfia alkaloid available only from Abbott. It adds good antihypertensive and tranquilizing activity. Yet its incidence of untoward effects, particularly lethargy and depression, is lower than with reserpine.

Enduronyl is available plain or Forte. The latter provides its variation where most helpful, by doubling the deserpidine.

Use Enduronyl for patients throughout the broad range of mild to moderately severe hypertension.

Once a day, every day

ENDURONYL®

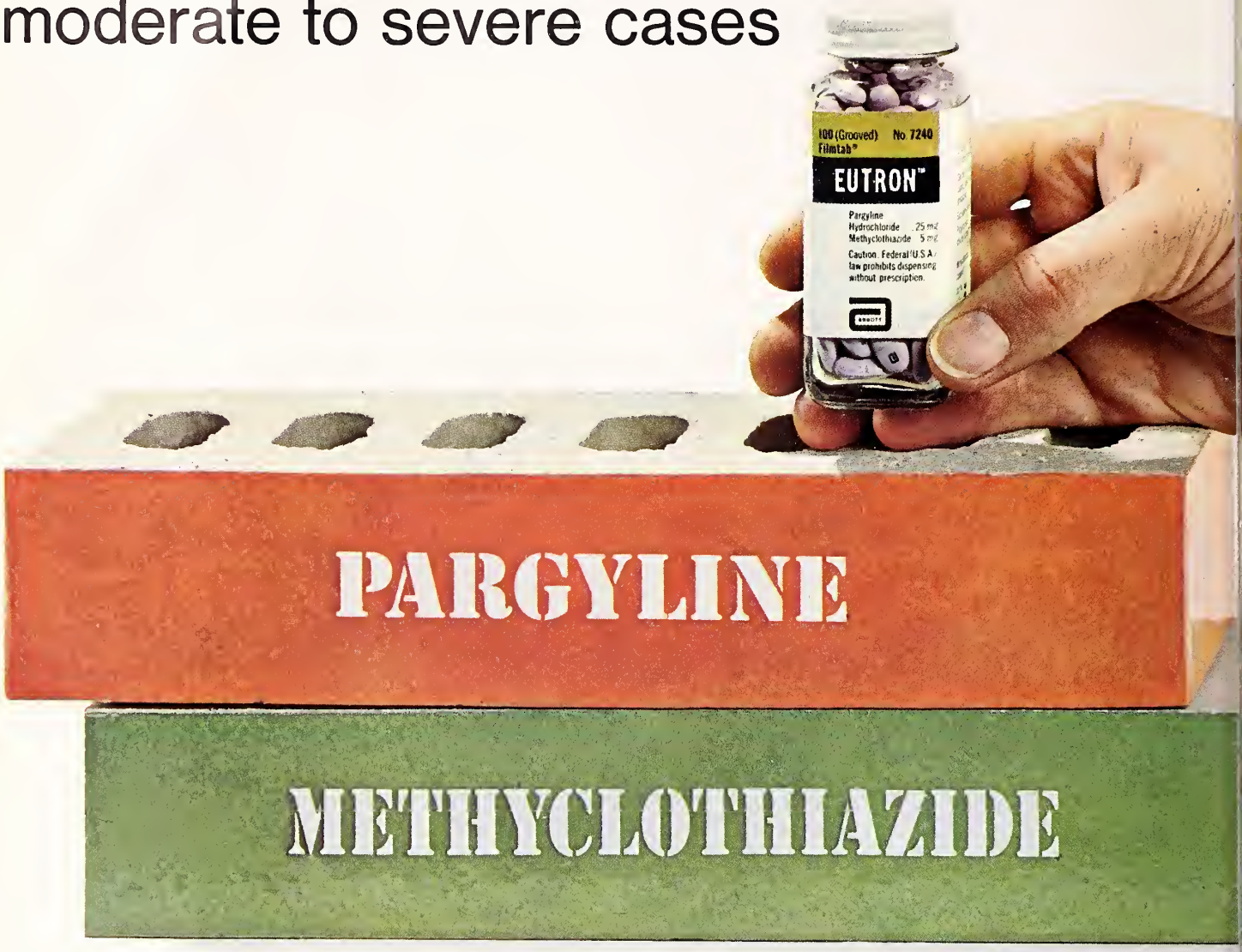
METHYCLOTHIAZIDE 5 mg. with DESERPIDINE 0.25 mg. or (FORTE) 0.5 mg.

MILD TO MODERATE TO SEVERE

See Brief Summary on final page of advertisement

801094

Eutron: A unique combination for handling moderate to severe cases



Affords almost uniform diastolic reduction in all body positions

Eutron lowers diastolic pressures nearly equally, whether your patient is standing up or lying down.

Thus, in clinical trials, average *standing* diastolic readings were reduced from 112 pre-treatment to 90 post-treatment; *sitting* from 115 to 95; and *recumbent* from 112 to 94.

Note that following Eutron, the diastolic reductions were nearly alike in all three body positions.

Use Eutron for managing your moderate to severe cases. Its building blocks enhance each other; hence lesser doses often suffice.

Once a day, every day

EUTRON™

PARGYLINE HYDROCHLORIDE 25 mg.
with METHYCLOTHIAZIDE 5 mg.

MILD TO MODERATE TO SEVERE

See Brief Summary on final page of advertisement

801094

ENDURON® | ENDURONYL®

METHYCLOTHIAZIDE

Each tablet contains Methyclothiazide 5 mg. with Deserpidine 0.25 mg. or 0.5 mg.

Indications: Edema and mild to moderate hypertension (Enduron), and mild to moderately severe hypertension (Enduronyl). More potent agents, if added, can be given at reduced dosage.

Contraindications: Sensitivity to thiazides; severe renal disease (except nephrosis) or shutdown; severe hepatic disease or impending hepatic coma (hepatic coma due to hypokalemia has been reported in patients on thiazides). Do not use Enduronyl in severe mental depression, suicidal tendencies, active peptic ulcer, or ulcerative colitis.

Warnings: Consider possible sensitivity where there is history of allergy or asthma. If added potassium is indicated, dietary supplementation is recommended. Reserve enteric-coated potassium tablets for cautious use only when necessary, as they may induce serious or fatal small bowel lesions (stenosis with or without ulceration), cause obstruction, hemorrhage, and perforation often requiring surgery; discontinue them immediately if abdominal pain, distention, nausea, vomiting, or g.i. bleeding occurs. Neither Enduron nor Enduronyl contains added potassium.

Precautions: Use thiazides cautiously in severe renal dysfunction, impaired hepatic function or progressive liver disease; also in pregnancy (bone marrow depression, thrombocytopenia, and altered carbohydrate metabolism have been reported in certain newborn). In surgery, thiazides may reduce response to vasopressors, and increase response to tubocurarine. Antihypertensive response may be enhanced following sympathectomy. Watch for electrolyte imbalance (e.g., hyponatremia) in all patients. In hypokalemia (especially in digitalized patients) give supplemental potassium. In hypochloremic alkalosis, give supplemental chloride.

Use rauwolfias with caution in patients with history of peptic ulcer. Rauwolfias with anesthetics may produce hypotension and bradycardia. Discontinue Enduronyl two weeks before elective surgery. Consider vagal blocking agents during emergency surgery. In epilepsy, adjust anticonvulsant dosage. In electroshock, shorten stimulus strength and duration. In occasional patients with depressive tendencies, rauwolfias may precipitate severe mental depression that usually disappears when drug is stopped.

Adverse Reactions: Thiazide reaction include blood dyscrasias (thrombocytopenia with purpura, agranulocytosis, aplastic anemia); elevation of BUN, serum uric acid or blood sugar; anorexia, nausea, vomiting, diarrhea, headache, dizziness, paresthesia, weakness, skin rash, photosensitivity, jaundice, symtomatic gout, and pancreatitis. Cutaneous vasculitis in the elderly has been reported with other thiazides. Adverse effects with deserpidine are qualitatively similar to those with reserpine, but their incidence is lower. These include nasal stuffiness, abdominal cramps or diarrhea, nausea, headache, weight gain, reduced libido and potency, peptic ulcer aggravation, epistaxis, skin eruption, asthma in susceptible patients, electrolyte imbalance, excessive salivation, and a reversible Parkinson's syndrome. Excessive drowsiness, fatigue, weakness, and nightmares may signal mental depression. Thrombocytopenia, purpura, and a symptom manifested by dull sensorium, deafness, uveitis, glaucoma, and optic atrophy are rare allergic reactions to other rauwolfias. Hypotension from antihypertensive agents may precipitate angina attacks in susceptible individuals. Usually adverse reactions disappear when drug is withdrawn.

EUTRON™

Each tablet contains Pargyline Hydrochloride 25 mg. with Methyclothiazide 5 mg.

Indications—Moderate to severe hypertension.

Contraindications—Pheochromocytoma, paranoid schizophrenia, hyperthyroidism and advanced renal failure. Not recommended in malignant hypertension, children under 12, pregnant patients.

Do not use with: centrally or peripherally acting sympathomimetic drugs; foods high in tyramine (e.g., aged and natural cheeses); parenteral reserpine or guanethidine; imipramine, amitriptyline, desipramine, nortriptyline or their analogues; other monoamine oxidase inhibitors; methyldopa or dopamine; separate Eutron and these agents by two weeks.

Sensitivity to thiazides; severe renal disease (except nephrosis) or shutdown; severe hepatic disease; impending hepatic coma from thiazide-induced hypokalemia.

Warnings—Patients: 1. No other drugs (particularly "cold preparations" and antihistamines), cheese or alcohol without physician's consent. 2. Promptly report orthostatic symptoms, severe headache, other unusual symptoms. 3. Angina pectoris or coronary artery disease patients must not increase physical activity with improved anginal symptoms or well-being.

Physicians: 1. Use antihistamines, hypnotics, sedatives, tranquilizers and narcotics (meperidine contraindicated) cautiously in reduced doses. 2. Stop Eutron two or more weeks before elective surgery; in emergency surgery reduce premedication (narcotics, sedatives, analgesics, etc.) to 1/4 to 1/5; carefully adjust anesthetic dosage to patient response. 3. Use cautiously in advanced renal failure. 4. Pargyline may induce hypoglycemia. 5. Consider possible sensitivity reactions when a history of allergy or asthma is present. 6. If potassium is indicated, dietary supplement is recommended; enteric-coated potassium tablets may induce serious or fatal small bowel lesions (stenosis with or without ulceration), cause obstruction, hemorrhage, and perforation frequently requiring surgery; discontinue medication immediately if abdominal pain, distention, nausea, vomiting or gastrointestinal bleeding occurs; Eutron does not contain added potassium. 7. Possible systemic lupus erythematosus has been reported for thiazides.

Precautions—Pargyline: Use cautiously at reduced dosage: caffeine, alcohol, antihistamines, barbiturates, chloral hydrate, other hypnotics, sedatives, tranquilizers, narcotics. Periodically do urinalyses, blood counts, liver function tests, etc. Use with caution in liver disease. Watch for orthostatic hypotension, especially in impaired circulation (e.g., angina pectoris, coronary artery disease, cerebral arteriosclerosis); also, augmented hypotension in concomitant febrile illnesses. Reduce or discontinue if hypotension is severe. In impaired renal function watch for cumulative drug effects, elevated BUN and other evidence of progressive renal failure; withdraw drug if these persist. In surgery increased central depressant response (hypotension and increased sedative effect) can be controlled by (1) discontinuing at least two weeks prior; (2) in emergency surgery lowering dose of premedication; (3) when necessary, administering a vasopressor. Do not use in hyperactive and hyperexcitable patients. Pargyline may unmask severe psychotic symptoms where emotional problems pre-exist. Use cautiously in Parkinsonism, especially with antiparkinsonian agents. In prolonged therapy, examine for change in color perception, visual fields, fundi and visual acuity. Also, prolonged therapy has made certain patients refractory to nerve blocking effects of local anesthetics.

Methyclothiazide: Use cautiously in severe renal dysfunction, impaired hepatic function or progressive liver disease; also in pregnancy (bone marrow depression, thrombocytopenia, and altered carbohydrate metabolism have been reported in certain newborn). In surgery thiazide may reduce vasopressor response and increase tubocurarine response. Antihypertensive response may be enhanced following sympathectomy. Watch for electrolyte imbalance (e.g., hyponatremia). Give supplemental chloride if hypochloremic alkalosis occurs and supplemental potassium if hypokalemia occurs (especially in digitalized patients). Thiazides may decrease serum P.B.I. without signs of thyroid disturbance.

Adverse Reactions—Pargyline: Orthostatic hypotension and associated symptoms, mild constipation, fluid retention, edema, dry mouth, sweating, increased appetite, arthralgia, nausea, vomiting, headache, insomnia, difficult in micturition, nightmares, impotence, delayed ejaculation, rash, purpura, weight gain, hyperexcitability, increased neuromuscular activity and other extrapyramidal symptoms. Drug fever is extremely rare. Reduction in blood sugar and hypoglycemic effects are possible. Congestive heart failure has been reported in a few patients with reduced cardiac reserve.

Methyclothiazide: Blood dyscrasias (thrombocytopenia with purpura, agranulocytosis, aplastic anemia); elevation of BUN, blood sugar or serum uric acid (gout may be induced); anorexia, nausea, vomiting, diarrhea, headache, dizziness, paresthesia, weakness, skin rash, photosensitivity, jaundice and pancreatitis. Cutaneous vasculitis in elderly patients has been reported with other thiazides.

If side effects are severe or persist, reduce dosage or withdraw drug. 804438R

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2.		J. S. Brown, Carlisle	May 23, 1968, Bloomington
3.	Daniel H. Cannon, New Albany	Elmer L. Wallace, New Albany	May 15, 1968, New Albany
4.	Frank B. Bard, Crothersville	Harold E. Miller, Seymour	May 15, 1968, Seymour
5.	Jack Somerville, Clinton	Milton Herzberg, Clinton	April 3, 1968, Terre Haute
6.	Paul Inlow, Shelbyville	Perry Seal, Brookville	May 1, 1968, Connersville
7.	Jay Reese, Martinsville	James H. Gosman, Indianapolis	May 15, 1968, Franklin
8.	William Stinson, Anderson	Charles R. King, Anderson	June 5, 1968, Anderson
9.	Martin Dickerson, Monticello	M. Ali Jehanyar, Monticello	May 16, 1968, Monticello
10.	John J. Reed, Hobart	Raymond Doherty, Crown Point	May 1, 1968, Whiting
11.	Charles Wise, Camden	Fred Poehler, La Fontaine	September 18, 1968, Delphi
12.	Max M. Gitlin, Bluffton	Berniece Williams, Fort Wayne	May 15, 1968, Angola
13.	E. C. Mueller, LaPorte	John Hildebrand, South Bend	September 18, 1968

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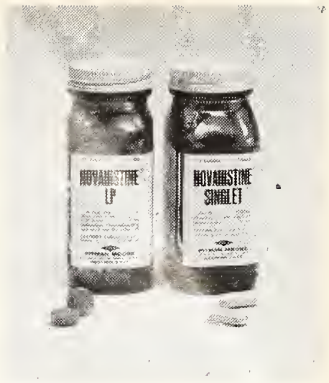

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Use cautiously in patients with severe hypertension, diabetes mellitus, hyperthyroidism or urinary retention. Caution ambulatory patients that drowsiness may result.

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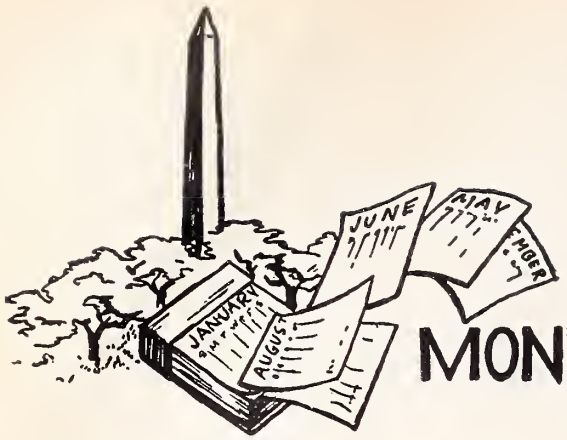

This summary of what is happening in Washington is prepared by AMA's Capitol office and air-mailed to *The Journal* on the ninth of each month preceding month of issue.

MONTH IN WASHINGTON

WASHINGTON, D.C.—The American Medical Association stated that the regional medical programs had showed good progress in the early stages but urged that Congress order an early evaluation by a non-government agency.

THE AMA POSITION was outlined by Bland W. Cannon, M.D., of Memphis, Tenn., a member of the Association Council on Medical Education, in testimony before the House Subcommittee on Public Health and Welfare. The subcommittee was considering administration legislation to extend the regional medical program law for five years.

SUBCOMMITTEE members reacted favorably to an AMA recommendation that the extension be for only three years. Some of the congressmen also indicated opposition to a recommendation by Michael DeBakey, M.D., of Houston, Tex., that appropriations for the regional medical programs be increased sharply.

"WE VIEW WITH FAVOR the early progress of RMP, its ability to build on existing patterns of medical care (sometimes adding new features or changing old ones as local demands and resources make possible) and the local flexibility which allows the program to make a real contribution to the health care of our nation," Dr. Cannon said. "At the same time, we recognize that the concept of the Regional Medical Program is still in its very early stage of existence and that it is difficult to fully appraise the program. We do not know, for example, how much this program adds to the stress on an already overtaxed supply of available medical manpower.

"THERE is some concern that the proliferation of federal health programs substantially contributes to the rise in health care costs. For this reason, we are pleased that H. R. 15758 provides for an evaluation of the program. We would suggest, however, that the evaluation begin July 1, 1968, rather than July 1, 1969, since 'evaluation' should be an integral part of the planning. We also suggest that the subcommittee consider further amending Section 102 to provide that the evaluation shall be made by a non-government agency . . . .

"WE RECOMMEND that the subcommittee delete the open-end authoriation for funds for the four fiscal years ending after June 30, 1969. In view of the fact that we are still dealing with a relatively

Continued

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		Accumulated Cash Value	Accumulated Dividends*
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26	13.75	277.16	68.98
27	14.20	285.14	72.27
28	14.65	293.24	75.78
36	19.45	361.30	107.90
37	20.20	370.12	112.51
38	21.00	378.99	117.07
39	21.80	387.92	121.77
40	22.65	396.90	126.55
41	23.60	405.91	131.45
42	24.55	424.02	141.43
54	40.95	516.77	222.19
55	42.90	524.54	230.31
56	44.95	532.38	238.53
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untried program, we believe it would be wise to limit the authorization to such sums as this subcommittee may determine to be reasonable, rather than to provide for 'such sums as may be necessary for the next four fiscal years.' "

HENRY BRILL, M.D., of Brentwood, N.Y., chairman of the AMA's Committee on Alcoholism and Drug Dependence, said that the AMA supported the part of the legislation authorizing federal grants for construction of facilities for a new program for alcoholic and narcotic addict rehabilitation.

"HOWEVER," HE SAID, "we have long felt that funds for staffing and operation are properly the responsibility of the community, once the major burden of construction has been met with federal assistance."

JOINT POLICY ANNOUNCED TO INCREASE MEDICAL STUDENTS

THE AMERICAN MEDICAL Association and the Association of American Medical Colleges announced a joint policy designed to increase the number of medical students.

THE STATEMENT "emphasized the urgent and critical need for more physicians if national expectations for health services are to be realized," and listed immediate and long-range steps that should be taken.

IMMEDIATE STEPS:—

1. Increase the enrollment of existing medical schools.
2. Foster curricular innovations and other changes in the educational programs which could shorten the time required for a medical education and minimize the costs.
3. Meet the need for innovation in educational programs and to encourage diversity in the character and objectives of medical schools. The development of schools of quality where a primary mission is the preparation of able physicians for clinical practice as economically and rapidly as possible is to be encouraged.

"A LONGER-RANGE approach to the need for physicians is the development of new medical schools," the statement said. "This approach will not solve our immediate, urgent need for more physicians but it is essential for meeting the national needs of 1980 and beyond.

"TO IMPLEMENT the measure enumerated above will require adequate financial support from governmental and various private sources for:—

"1. Construction of facilities to expand enrollment of existing schools and to create new schools.
"2. Support of the operational costs of medical schools.
"3. Stimulation and incentive for educational innovation and improvement."

COHEN NAMED HEW SECRETARY

WILBUR J. COHEN, a key proponent of medicare, was named by President Johnson to succeed John W. Gardner as secretary of Health, Education and Welfare.

COHEN, now 54, started with the federal government in the early

thirties and helped draft the social security progarm. Recognized by Congress as an expert on social security, he was the leading architect of medicare and played a prominent role in getting Congressional approval of the program.

HE HAD BEEN undersecretary of HEW since June, 1965. For the previous four years, he had been assistant secretary of HEW.

AT A NEWS CONFERENCE following his appointment to the top HEW post, Cohen forsaw health care accounting for as much as 50% of total welfare costs. He urged that voluntary private health insurance be improved. But he said that he did not believe private programs could be improved sufficiently to eliminate the need for government help in dealing with the health care needs of low income groups and the disabled.

"MEDICARE and medicaid have had some impact on higher medical costs," Cohen said. "But I think doctors' costs are going to taper off. Hospital costs are going to continue to rise but there is a problem of antiquated and inefficient methods. This can be changed."

SOON AFTER Gardner's resignation became effective, Cohen announced major steps in the reorganization of HEW's health activities. Unified direction of HEW's major health agencies was assigned to Dr. Philip R. Lee, Assistant Secretary for Health and Scientific Affairs. Dr. William H. Stewart, Surgeon General of the Public Health Service, was named principal deputy to Dr. Lee.

DR. LEE WAS GIVEN direct authority over the Public Health Service and the Food and Drug Administration. Dr. Stewart and Food and Drug Commissioner James L. Goodard, M.D., will report directly to the assistant secretary, while continuing to carry out their present administrative functions.

DR. LEE'S responsibility also was expanded to include overall health policy direction and coordination of other health programs, including medicare,medicaid and the health activities of the children's bureau.

IN HIS 1968 message to Congress, President Johnson had directed the HEW secretary to submit "a modern plan of organization to achieve the most efficient and economical operation of the health programs of the federal government."

"IN THE PAST four years," Cohen said, "31 major new laws have been enacted that increase the department's authority, responsibility and appropriations in the field of health.

"THE TOTAL federal investment in health has grown from approximately $3 billion in 1960 to nearly $14 billion in 1968, and $16 billion proposed in 1969. Because of new programs, like medicare and medicaid, the HEW health investment alone has more than tripled in the past three years, from $2.6 billion in 1966 to $9.6 billion this fiscal year, and $10.9 billion proposed for 1969."

IN A REASSIGNMENT of agency responsibilities, the National Institutes of Health was expanded to include the present NIH, the Bureau of Health Manpower and the National Library of Medicine. The Health Services and Mental Health Administration was setup with re-

sponsibility for all other functions previously assigned to the Public Health Service. These two new agencies, along with the present Food and Drug Administration now make up an expanded and more comprehensive Public Health Service.

. JAMES A. SHANNON, Director of the National Institutes of Health, was named director of the newly constituted NIH. Dr. Robert Q. Marston, director of the Division of Regional Medical Programs, was named acting administrator of the Health Services and Mental Health Administration. Dr. Goddard continues as Commissioner of Food and Drugs. The heads of these three agencies will report directly to Dr. Lee under the new organizational setup. ◄

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Admissions are arranged through referral to any active staff psychiatrist.

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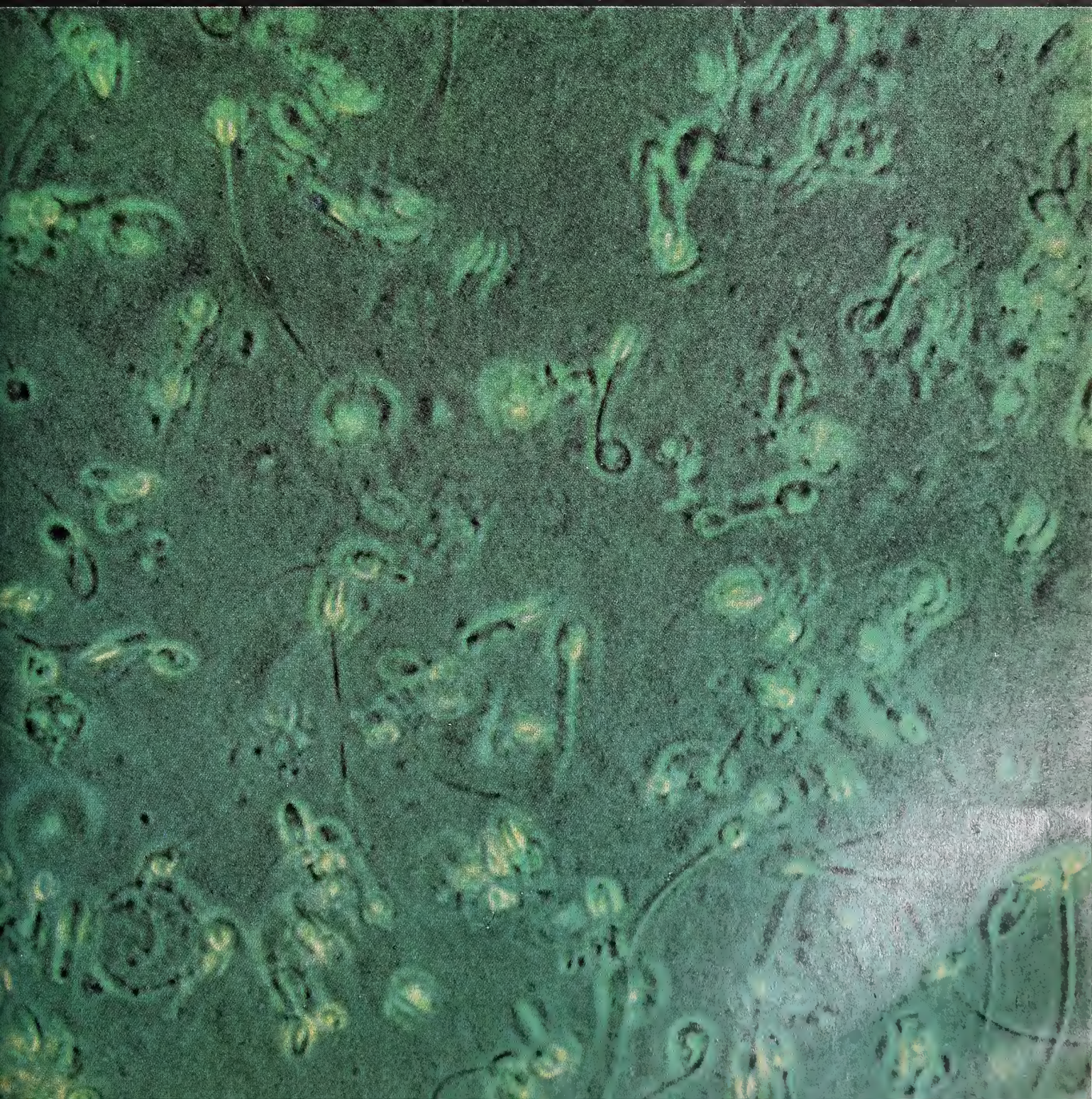
When the talk turns to oral contraceptives, it makes medical sense to remember low-dose Norinyl®-1.

(norethindrone 1mg. c̄ mestranol 0.05mg.)

Turn page for contraindications, precautions and side effects.



Reduction of oral contraceptive dosage to the lowest effective levels is a well-accepted principle of conservative medical practice. In keeping with this view, Norinyl is now also available as Norinyl-1, containing exactly one half the previous dosage of norethindrone and mestranol. Clinical experience has established that effective fertility control can be achieved with the same degree of reliability and safety with new Norinyl-1 when taken as directed.

What about switching patients from higher dosage forms?

In transferring patients to low-dose Norinyl-1 from higher-dosage oral contraceptives, some breakthrough bleeding may occur in the early cycles. In the majority of cases the bleeding episode is mild and self-limited. The long-term advantages of the lower dosage form should be weighed against the inconvenience of possible breakthrough bleeding in the individual patient.

Contraindications: 1. Patients with thrombophlebitis or with a history of thrombophlebitis or pulmonary embolism. 2. Liver dysfunction or disease. 3. Patients with known or suspected carcinoma of the breast or genital organs. 4. Undiagnosed vaginal bleeding.

Warnings: 1. Discontinue medication pending examination if there is sudden partial or complete loss of vision or if there is a sudden onset of proptosis, diplopia or migraine. If examination reveals papilledema or retinal vascular lesions, medication should be withdrawn. 2. Since the safety of NORINYL-1 (norethindrone 1 mg. with mestranol 0.05 mg.) in pregnancy has not been demonstrated, it is recommended that for any patient who has missed two consecutive periods, pregnancy should be ruled out before continuing the contraceptive regimen. If the patient has not adhered to the prescribed schedule, the possibility of pregnancy should be considered at the time of the first missed period. 3. Detectable amounts of the active ingredients in oral contraceptives have been identified in the milk of mothers receiving these drugs. The significance of this dose to the infant has not been determined.

Precautions: 1. The pretreatment physical examination should include special reference to breast and pelvic organs, as well as a Papanicolaou smear. 2. Endocrine and possibly liver function tests may be affected by treatment with NORINYL-1. Therefore, if such tests are abnormal in a patient taking NORINYL-1 it is recommended that they be repeated after the drug has been withdrawn for two months. 3. Under the influence of estrogen-progestogen preparations, preexisting uterine fibromyomata may increase in size. 4. Because these agents may cause some degree of fluid retention, conditions that may be influenced by this factor, such as epilepsy, migraine, asthma, cardiac or renal dysfunction, require careful observation. 5. NORINYL-1 should be used with caution in patients with a history of cerebrovascular accident. 6. In relation to breakthrough bleeding, and as in all cases of irregular bleeding *per vaginam*, nonfunctional causes should be borne in mind. In cases of undiagnosed vaginal bleeding, adequate diagnostic measures are indicated. 7. Patients with a history of psychic depression should be carefully observed and the drug discontinued if the depression recurs to a serious degree. 8. Any possible influence of prolonged NORINYL-1 therapy on pituitary, ovarian, adrenal, hepatic or uterine function awaits further study. 9. A decrease in glucose tolerance has been observed in a small percentage of patients on oral contraceptives. The mechanism of this decrease is obscure. For this reason, diabetic patients should be carefully observed while receiving NORINYL-1 therapy. 10. Because of the occasional occurrence of thrombophlebitis and pulmonary embolism in patients taking oral contraceptives, the physician should be alert to the earliest manifestations of the disease. 11. Because of the effects of estrogens on epiphyseal closure, NORINYL-1 should be used judiciously in young patients in whom bone growth is not complete. 12. The age of the patient constitutes no absolute limiting factor, although treatment with NORINYL-1 may mask the onset of the climacteric. 13. The pathologist should be advised of NORINYL-1 therapy when relevant specimens are submitted.

Side effects observed in patients receiving oral contraceptives: The following adverse reactions have been observed in patients receiving oral contraceptives: nausea, vomiting, gastrointestinal symptoms (such as abdominal cramps and bloating), breakthrough bleeding, spotting, change in menstrual flow, amenorrhea, edema, chloasma or melasma, breast changes (tenderness, enlargement and secretion), change in weight (increase or decrease), changes in cervical erosion and cervical secretion, suppression of lactation when given immediately postpartum, cholestatic jaundice, migraine, rash (allergic), rise in blood pressure in susceptible individuals, mental depression.

Although the following side effects have been reported in users of oral contraceptives, no cause and effect relationship has been established: anovulation post-treatment, premenstrual-like syndrome, changes in libido, changes in appetite, cystitis-like syndrome, headache, nervousness, dizziness, fatigue, backache, hirsutism, loss of scalp hair, erythema multiforme, erythema nodosum, hemorrhagic eruption, itching.

The following occurrences have been observed in users of oral contraceptives (a cause and effect relationship has been neither established nor disproved): thrombophlebitis, pulmonary embolism, neuro-ocular lesions.

The following laboratory results may be altered by the use of oral contraceptives: increased sulfobromophthalein and other hepatic function tests, coagulation tests (increase in prothrombin, Factors VII, VIII, IX and X), thyroid function (increase in PBI and butanol extractable protein-bound iodine and decrease in T^3 values), metyrapone test, pregnanediol determination.

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SYNTEX

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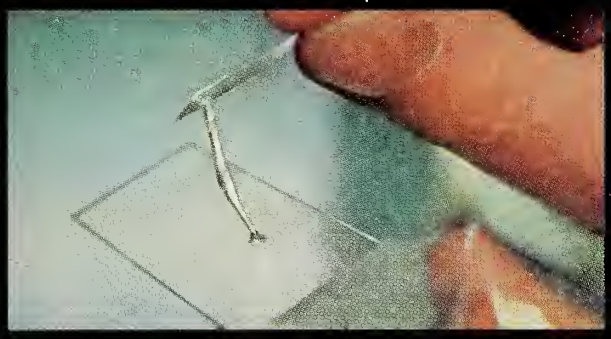
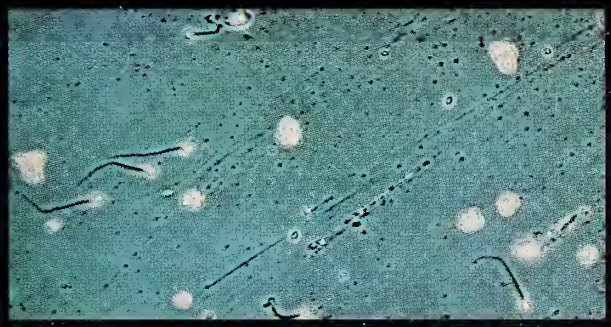
Here's why Norinyl-1 makes medical sense.

The effectiveness of Norinyl-1 as a low-dose oral contraceptive may be explained by its possible multiple action. In addition to its primary action of suppression of ovulation, Norinyl-1 may offer additional protective mechanisms... (1) creation of a cervical mucus that may be hostile to sperm penetration, and (2) development of an endometrium that may be out of phase with nidation. These effects are illustrated below.

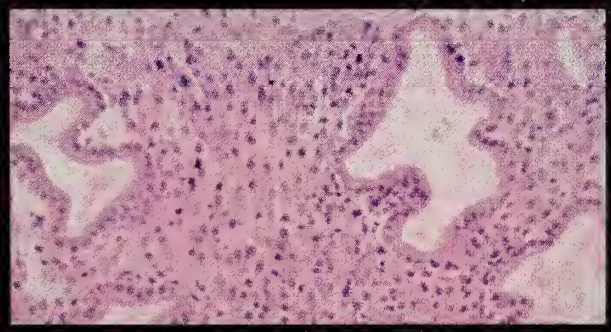
Untreated Patient



Cervical mucus at midcycle is usually thin and watery, with Spinnbarkeit (stretchability) of 15 to 20 cm.

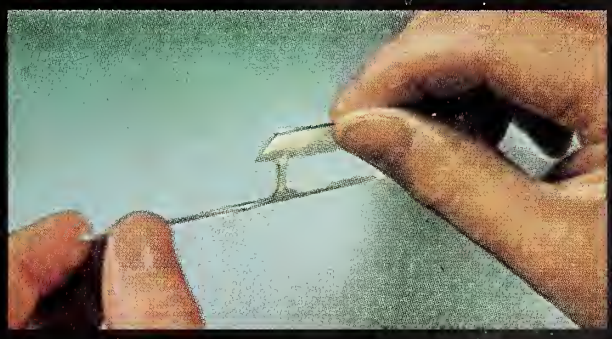


Spermatozoa appear healthy, active, freemoving.

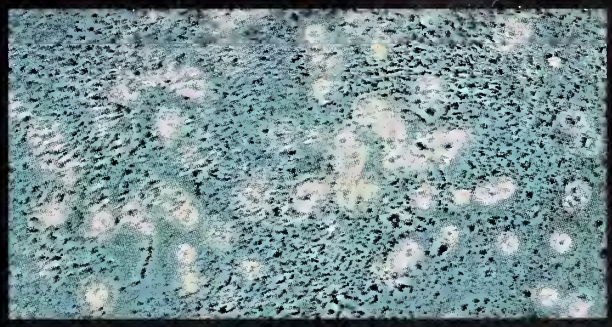


Endometrium of untreated patient is receptive to the fertilized ovum during secretory phase.

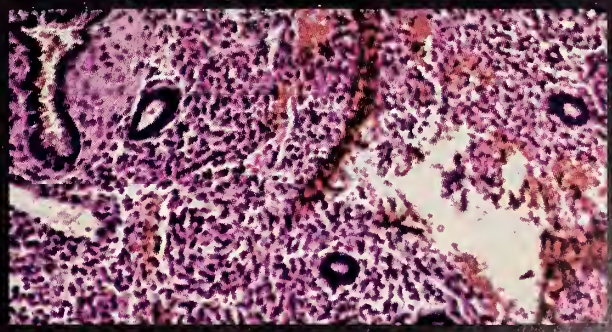
Norinyl-1 Patient



Cervical mucus at midcycle is scanty, viscous—with Spinnbarkeit of 1 cm. or less.



Immobile spermatozoa as they appear in cervical mucus taken from patient treated with Norinyl-1.



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Norinyl®-1 tablets
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Indications: Hypertension and many types of edema involving retention of salt and water.
Contraindications: Hypersensitivity and most cases of severe renal or hepatic disease.
Warning: With the administration of enteric-coated potassium supplements, which should be used only when adequate dietary supplementation is not practical, the possibility of small bowel lesions (obstruction, hemorrhage, and perforation) should be kept in mind. Surgery for these lesions has frequently been required and deaths have occurred. Discontinue enteric-coated potassium supplements immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occur. Use with caution in pregnant patients, since the drug may cross the placental barrier and adverse reactions which may occur in the adult (thrombocytopenia, hyperbilirubinemia, altered carbohydrate metabolism, etc.) are potential problems in the newborn.
Precautions: Antihypertensive therapy with Hygroton should always be initiated cautiously in postsympathectomy patients and in patients receiving ganglionic blocking agents or other potent antihypertensive drugs, or curare. Reduce dosage of concomitant antihypertensive agents by at least one-half. Barbiturates, narcotics or alcohol may potentiate hypotension. Because of the possibility of progres sion of renal damage, periodic determination of the BUN is indicated. Discontinue if the BUN rise or liver dysfunction is aggravated. Hepatic coma may be precipitated. Electrolyte imbalance, sodium an or potassium depletion may occur If potassium depletion should occur during therapy, Hygroton shou be discontinued and potassium supplements given, provided the

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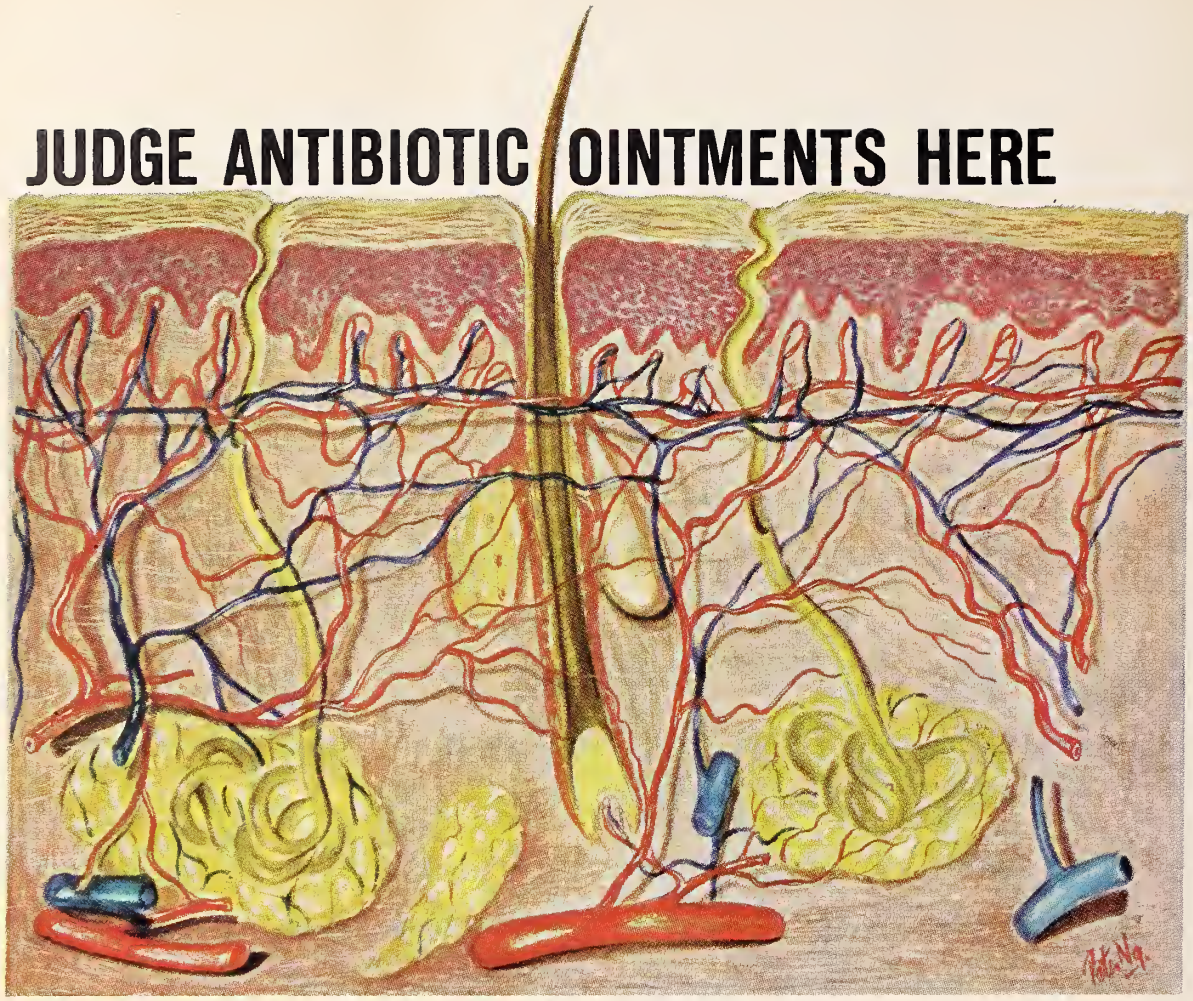

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Barnes-Hind Ophthalmic Products, makers of contact lens care products, has a free, small-sized 28-page booklet which will act as an aid in answering patients' questions about contact lenses and their care. The booklet is intended as a supplement to doctor's instructions and as an aid to the patient between visits. For copies of the booklet write Barnes-Hind at 895 Kifer Road, Sunnyvale, California 94086. Local Barnes-Hind professional representatives will also handle the booklet.

* * *

There is a new book by Doubleday—"How to Cure Your Own Headaches"—written for the general public, but presumably applicable to doctors as well. The author—Dr. Ainslie Meares—is a noted Australian psychiatrist. His approach to the drugless relief of headaches and tension in general is to coach the patient on simple exercises and methods of achieving muscular relaxation. The book was released for sale on October 27 at a price of $4.95.

* * *

A Pocket Swiss EKG Caliper made by Kern Instrument of Switzerland is now available from Borden & Riley Paper Co., 62 E. 11th St., New York City. The caliper comes with a plastic protective sheath. The points are replaceable and new sheaths and new points are for sale separately. A precision instrument for accurate measurements, it is easily carried at all times.

* * *

A pocket toothbrush, with a carrying case and a dentifrice built into the bristles, will be marketed by Vendex International for the convenience of travelers and others who wish to brush when away from home. The suggested retail price is twenty-five cents. It will be sold by automatic coin operated machines and over the counter in appropriate locations.

* * *

"Voluntary Sterilization as a Modern Method of Birth Control" is the theme of a new book titled "Sex Without Babies", authored by H. Curtis Wood, Jr., M.D. The price is $5.00. Dr. Wood is an obstetrician-gynecologist of 30 years experience and has been actively associated with various organizations for voluntary sterilization and planned parenthood. The book is published by The Whitmore Publishing Company and may be obtained from the Association for Voluntary Sterilization, 14 W. 40th St., New York City 10018.

* * *

News of what is new in the medical supply industry is composed of abstracts from news releases by manufacturers—of pharmaceuticals, clinical laboratory supplies, instruments, and surgical appliances and book publishers. Each item is published as news and does not necessarily constitute an indorsement of a product or recommendation for its use by THE JOURNAL or by the Indiana State Medical Association.

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Parepectolin for quick relief of acute diarrhea
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In children, Parepectolin may be used to control diarrhea promptly and prevent dehydration, until etiology has been determined. In some cases, Parepectolin may be all the therapy necessary.

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Each fluid ounce of creamy white suspension contains:
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Usual Children's Dose: One or two teaspoonfuls three times daily.

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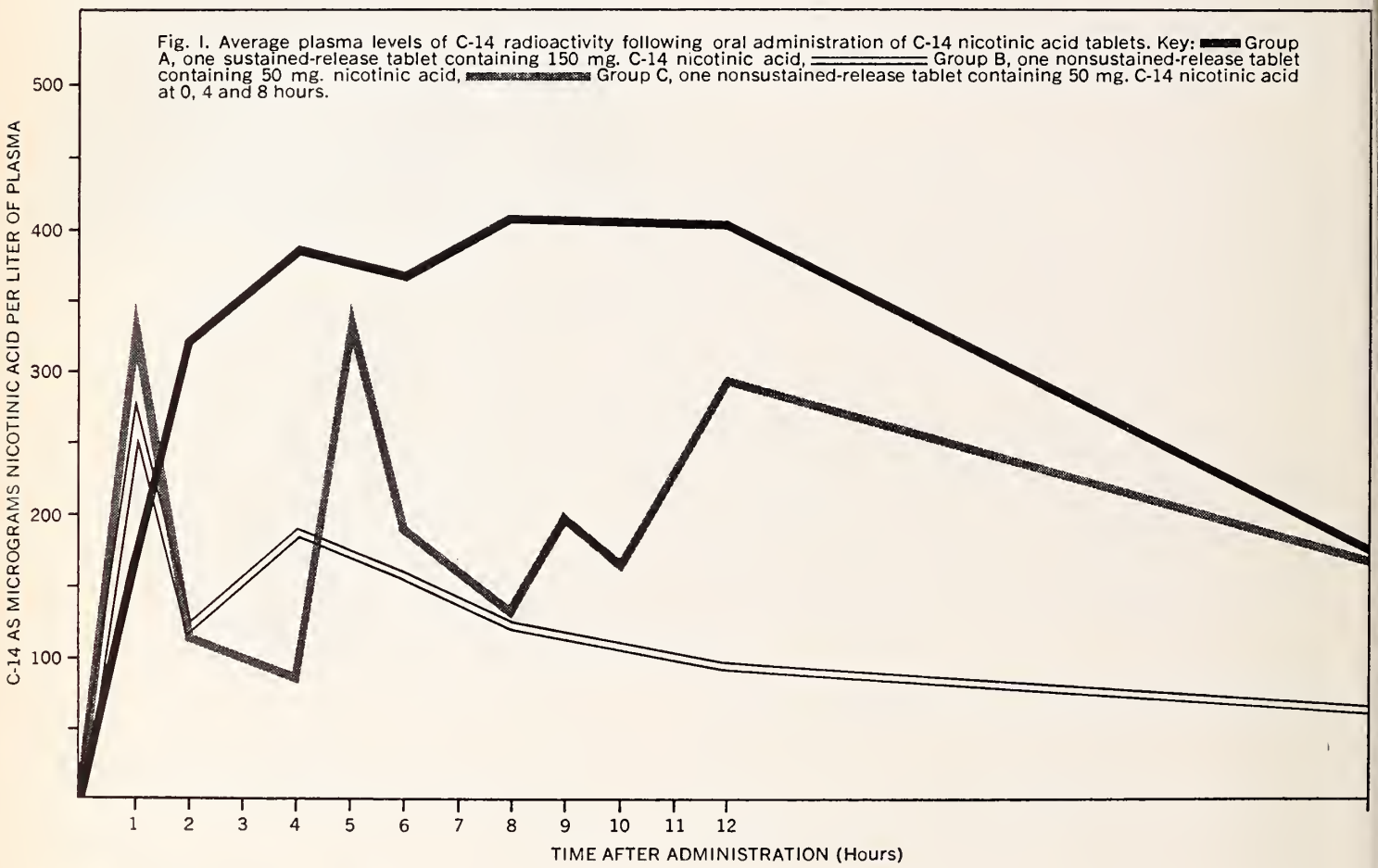

(fewer absent doses by absent-minded patients)

Human volunteer subjects were administered Geroniazol TT tablets with the nicotinic acid component made radioactive with C-14. Plasma and urine samples were analyzed. (See Figures I and II) The radioactive tracer study substantiated the previous clinical evidence that the release of nicotinic acid from the Geroniazol TT tablet produced a gradual rise in plasma levels to a plateau for a total of 12 hours and more.

Such proven sustained activity makes the management of geriatric patients much easier by minimizing the possibility of neglected doses through absent-mindedness or senile confusion. Therapy *can* be continuous on a daily dose of only one Geroniazol TT tablet every 12 hours.

The gradual release of nicotinic acid in Geroniazol TT will provide the well-known peripheral vasodilatation needed in patients with deficient circulation and with a minimum amount (if any) of "flushing." Also, cerebrovascular circulation is complemented by pentylenetetrazol, long-established as a cerebral and respiratory stimulant.

Geroniazol TT improves the typical, unfortunate, signs of senile confusion. Patients become more alert,

ged and debilitated

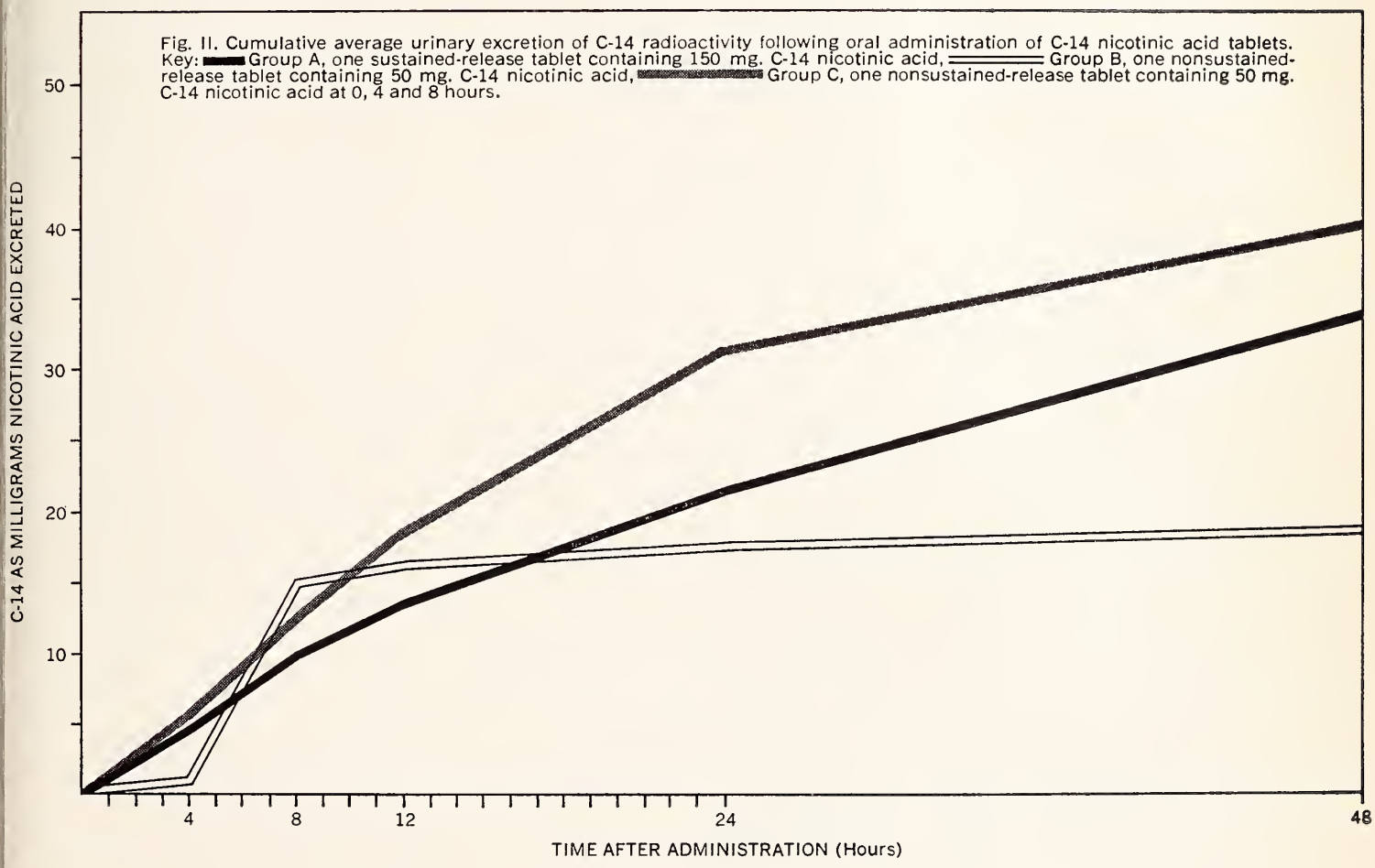

Fig. II. Cumulative average urinary excretion of C-14 radioactivity following oral administration of C-14 nicotinic acid tablets. Key: Group A, one sustained-release tablet containing 150 mg. C-14 nicotinic acid, Group B, one nonsustained-release tablet containing 50 mg. C-14 nicotinic acid, Group C, one nonsustained-release tablet containing 50 mg. C-14 nicotinic acid at 0, 4 and 8 hours.

less confused and moody. Personal care, memory, emotional stability, social attention improve. Fatigue, apathy and irritability are reduced.

A prescription for 100 tablets of Geroniazol TT will permit your patients to enjoy the benefits of time-prolonged nicotinic acid/pentylenetetrazol therapy, at an economical price. Dosage is only one tablet every 12 hours.

Contraindications: There are no known contraindications.

Precautions: Exercise caution when treating patients with a low convulsive threshold.

Side Effects: Side effects are rarely encountered, however due to the vasodilatation effect of nicotinic acid, transitory mild nausea, flushing, tingling and pruritus are possible.

Dosage: One tablet every 12 hours.

Supplied: Prescribe bottles of 100 tablets, to take advantage of recent price reduction.

References: 1. Report by Nuclear Science & Engineering Corp., Pittsburgh, Pa., in files of Philips Roxane Laboratories. 2. Connolly, R.: W. Virginia Med. J. *56*:263 (Aug.) 1960. 3. Curran, T. R., and Phelps, D. K.: Am. Pract. & Digest Treat. *11*:617 (July) 1960.

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Letters to the editor

To the Editor:

AMA-ERF or American Medical Association Education and Research Foundation, is composed of six divisions or, as they phrase it in Chicago, six on-going programs. The six consist of:

1. Education Funds for Medical Schools
2. Student Loan Program
3. Biomedical Research
4. Medical Journalism
5. Categorical Research Grants
6. Tobacco and Health

Few physicians are familiar with the programs except possibly Student Loan and Biomedical Research. For this reason I will discuss the less familiar programs first.

The Tobacco and Health program was started in 1963 not by the tobacco industry, but by AMA. One-half million dollars was set aside to encourage study into the ailments caused by smoking. Subsequently, the American tobacco industry has pledged ten million dollars over a five-year period to further implement this particular research. It is a positive program in a field needing immediate and accurate answers. Thus far, there has been considerable research into behavior of the smoker, the effects of nicotine on cardiopulmonary function and defenses, as well as the carcinogenic effects of smoking. I believe we would all recognize the value of continuing this program.

The Categorical Research Grants Program was instigated as a vehicle to assist individuals, groups, organizations, industries, etc., to contribute to medical research programs via bequests or life-time gifts. Individual bequests or gifts are often too small to support a research program. Combined gifts can produce a fine comprehensive research endeavor. AMA lists eleven general disease categories needing research. This provides prospective donors a broad selection with no specific limited designation. Gifts made in this manner give maximum effectiveness because of their combined efforts. This program is important to research, physicians and non-medical donors as well.

It was a complete surprise to me to learn that the AMA sponsors a program in medical journalism. After reading this letter, you will probably conclude that I should have submitted to a long course in this field before writing, and I would be the first to agree. The program in journalism gives interested physicians an opportunity to improve their writing skills under the direction of the editorial department of the *JAMA*. Two intensive one-week seminars as well as an eight-week summer institute are conducted annually. This gives the interested physician an opportunity to study medical composition and editing and has proved invaluable to those making a career of medical journalism. The most promising students may, if desired, continue on-the-job-training in the *JAMA* offices. It is a program that may not interest most physicians, but is a necessary program in the continuing progress of medical communication.

A fourth division under AMA-ERF is classified as Education Funds for Medical Schools. More than $1,000,000.00 is given annually by physicians and medical auxiliaries to approved medical schools in the United States. These monies can be used by each school in an unrestricted manner. One hundred percent of the donations are given to the schools with administrative or collection cost paid by the AMA.

The next program is my favorite, the Loan Guarantee Program. It is the largest medical student loan program in existence by far. The program is not limited to the medical student but is extended to interns and residents too. At the end of 1967, slightly over 19,000 medical students, interns and residents had AMA backed loans. This is one-fourth of all students. Take a second look at this ratio and you will realize just how extensive and inclusive this loan program is. Each student, intern or resident, may borrow up to $1,500.00 yearly to help defray the cost of his or her education. They have until six months after starting private practice to make arrangements with the lending institution to repay the loan. The average repayment time has been slightly under three years.

In detail the program operates as follows: for each one dollar subscribed by us, one dollar is deposited in the home bank in Chicago; and for each dollar deposited, $12.50 can be borrowed. The borrower makes application to AMA after successfully completing one semester of medical school. His application is then received by the dean of his school who approves or disapproves it. If approved, the student under the auspices of the AMA contacts one of the eight participating banks. He must borrow at least $400.00 annually and at present can borrow no more than $1,500.00. The borrower agrees to pay the prime rate plus 1% interest. The prime rate is the interest rate extended to preferred customers of the bank. This is a simple interest (no compounding) and no interest need be paid during the training period. Some borrowers have felt, in the past, that the AMA should pay the interest so that they would be interest-free loans. If the AMA did this the total fund would be depleted in two years. With the speed with which the loans have been repaid by most borrowers, the interest seems of little importance and offers no real prob'em. A number of students have repaid their loans during their internship, residency or military service and as a result have established such good credit ratings that they

are able to borrow substantially larger sums on their own signature for the purpose of opening a private practice.

Those of you who are familiar with the Indiana State Medical Association Student Loan Fund will recognize the close similarity to the AMA program. The main difference is their respective sizes. Continuation of the AMA Loan Guarantee Program at the present level requires $400,000.00 more each year. With inflation and the increasing number of medical students, more funds should be made available. This loan program deserves to be continued and enlarged.

The Institute for Biomedical Research is the most controversial program of AMA-ERF. Many physicians are opposed to research by the AMA. They feel the organization should concentrate their endeavors protecting their interests. Needless to say, there is support for their feelings.

This was the last of the six programs started. The first plans were conceived in 1963, but were not implemented until October, 1965. The section was born under strained and even somewhat strange circumstances. Because the program was not a child of the AMA House of Delegates where such programs are generally delivered, it has failed to gain the favor or sanction of the majority of AMA members.

Should we continue such a program? I cannot or would not want to be a judge of this. After spending several hours in the AMA headquarters with Dr. Howard Schneider and other scientists, I feel we should not make a hasty narrow evaluation of the program. This research is one of pure science on the basic cellular level; the Federal Government has no control or influence over it. Each scientist investigates a subject of his choice. He is not encumbered with teaching, lecturing or writing requirements, unless he so desires. Even so, one hundred written articles were the product of the AMA-ERF Biomedical Research division last year. Each member of the staff is outstanding in his field of research.

The three hours I spent with Dr. Schneider left a very favorable and lasting impression on me. To say that he is impressive and a learned scientist would be a gross understatement. Dr. Schneider will be the acting director until Dr. George Beadle relieves him. Dr. Beadle is vacating the post of president of Chicago University to head this division. The program is to be moved to Chicago University's campus as the university gave the AMA the land to build a new facility. Despite being on the campus, there will be no administrative connection, no utilization of the scientists for teaching or lecturing and no use of the facilities by university staff members. Medicine is always striving for the ultimate goal in all of its endeavors. This research program seems to be a step in this direction and could repay us many times for our expenditures.

It is hoped this review will help renew and reaffirm our dedication to the AMA-ERF program. Controversy only strives to keep us alert to our responsibility in keeping outside interests from invading these programs. The controversy of the Biomedical Research Program is not unjust or even unwarranted, but could and will make this the epitome of all research programs.

Indiana ranked second in 1966 in the number of contributors to AMA-ERF and sixth nationally in the total amount contributed. From our state medical association dues, $2.50 is allocated annually for support of the programs. In addition, 144 physicians made further contributions and the Woman's Auxiliary contributed $19,124.74 for a total contribution of $46,976.76. Such worthwhile programs need our continued and increased support. ◄

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Meprobamate: Careful supervision of dose and amounts prescribed is advised, especially for patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g. alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on the drug. Where excessive dosage has continued for weeks or months, reduce dosage gradually. Sudden withdrawal may precipitate recurrence of preexisting symptoms such as anxiety, anorexia, or insomnia; or withdrawal reactions such as vomiting, ataxia, tremors, muscle twitching and, rarely, epileptiform seizures. Should meprobamate cause drowsiness or visual disturbances, reduce dosage and avoid operation of motor vehicles, machinery or other activity requiring alertness. Effects of excessive alcohol consumption may be increased by meprobamate. Appropriate caution is recommended with patients prone to excessive drinking. In patients prone to both petit and grand mal epilepsy meprobamate may precipitate grand mal attacks. Prescribe cautiously and in small quantities to patients with suicidal tendencies.
Side Effects: Overstimulation of the central nervous system, jitteriness and insomnia or drowsiness. Dextro-amphetamine sulfate: Insomnia, excitability, and increased motor activity are common and ordinarily mild side effects. Confusion, anxiety, aggressiveness, increased libido, and hallucinations have also been observed, especially in mentally ill patients. Rebound fatigue and depression may follow central stimulation. Other effects may include dry mouth, anorexia, nausea, vomiting, diarrhea, and increased cardiovascular reactivity.

Meprobamate: Drowsiness may occur and can be associated with ataxia; the symptom can usually be controlled by decreasing the dose, or by concomitant administration of central stimulants. Allergic or idiosyncratic reactions: maculopapular rash, acute nonthrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever, transient leukopenia. A case of fatal bullous dermatitis, following administration of meprobamate and prednisolone, has been reported. Hypersensitivity has produced fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anuria, stomatitis, proctitis (1 case), anaphylaxis, agranulocytosis and thrombocytopenic purpura, and a fatal instance of aplastic anemia, but only when other drugs known to elicit these conditions were given concomitantly. Fast EEG activity, usually after excessive dosage. Impairment of visual accommodation. Massive overdosage may produce drowsiness, lethargy, stupor, ataxia, coma, shock, vasomotor and respiratory collapse.

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LOOKS AT MEDICINE

This section of THE JOURNAL is devoted to the presentation of opinions which appear on the editorial pages of the public press, and which are of interest to the medical profession. Its function is to review comments which may be favorable or unfavorable to medicine. Members are invited to submit editorial clippings for this column.

The Coroner's Office

We were pleased to see that Dr. Lawrence E. Benham has decided to seek re-election to the office of Lawrence County coroner in this year's election.

Dr. Benham has done an outstanding job as coroner, despite the fact that he is a very busy physician. But he recognizes the need for a professional man in the office of coroner and that someone has to do it. We feared that he might not seek a second term and are relieved that he is a candidate.

It seems to us that the position of coroner is one which should be aloof to politics and it really makes little difference which ticket a coroner uses as a vehicle to office. Once in the office the fact that he was elected on a Democrat or Republican ticket should be forgotten, so long, of course, as a good job is being performed.

Dr. Benham has been particularly thorough in his investigations and reports. He recognizes that the office of coroner is a public trust and that the public has a right to know the findings of his office. His cooperation with the press has been excellent and this, in reality. means cooperation with the public.

Dr. Benham has an advantage in the office of coroner since he is a Lawrence County native and knows the territory and terrain of the county like a book. He was born in what was known as Torphytown. We had never heard of Torphytown. but were told that it was a row of houses built by Indiana Limestone Company between Oolitic and Needmore. The ground on which the houses were built was eventually needed for quarrying and the community disappeared. Dr. Benham moved into Oolitic in 1919 and began the practice of medicine in Bedford in 1950. He is now completing his first term as coroner.

That brings to mind a couple of points we want to make about the office of coroner, and some other public offices.

There are two changes which are needed in election laws regarding the office of coroner. First, we feel, as do professional people, that the office of coroner should be held by a licensed physician. Second, there should not be a two-term limit on the time one person may serve in the office.

It is reasonably certain that only a person trained and skilled in medicine is qualified to determine the cause of death and to conduct an intelligent investigation into such causes. But it is still possible for anyone to run for coroner. It hasn't been so long ago that a Monroe County housewife was elected to the office of coroner, defeating a trained and highly capable pathologist. This happened simply because there was a sweep of one party over the other and the housewife happened to be on the winning ticket.

We suppose that the lack of legal qualifications for the office carries over from many years ago when there were fewer physicians and perhaps some small counties may have had none at all. But times have changed and we know of no county which does not now have several good doctors.

We feel particularly strong about the limitation on number of terms which one person may serve consecutively in the office of coroner. If a well qualified man is doing a fine job in the office, why change simply for the sake of change?

Experience is the most valuable teacher and it stands to reason that a doctor who has served in the office of coroner will be more effective than one who has not. We think that coroners and other officers should be tested at the polls regularly, to give the voters opportunity to make a change if one is desired, but we cannot agree with a law which dictates two terms and then out.

These are things which the Indiana Legislature should consider soon.—*Bedford Times-Mail*, Feb. 29, 1968.

Dr. Dan Urschel

Few "small town" physicians have accomplished so much on a national scale as eminent heart specialist Dr. Dan Urschel, whose death by his own hand Monday stunned and saddened the community of Mentone, his many patients, fellow members of the medical profession, friends and admirers in Kosciusko County, the state of Indiana and throughout the United States. Dr. Urschel's counsel in the field of cardiology was sought by many practitioners—

from the "rookie" physician to the most skilled — both locally and nationally. Patients drove many miles to be under his care. As a state and national leader of the Flying Physicians Assn., he developed a unique but most interesting hobby that won him countless friends throughout the world. Residents of Mentone will long remember his more than 30 years of service — civic and medical — to their community. Although he was definitely "big time" in every concept of the medical profession, Dr. Urschel chose to remain in, and render his skill, to the people with whom he lived in a comparatively small town. For this, he will long be remembered.—*Warsaw Times-Union*, March 5, 1968.

A Mountain To Be Climbed

The crisis of money and progress facing the Indianapolis Hospital Development Association in its centralized computer service project is deeply regrettable.

Despite its difficulties and disappointments, this is a project which holds great potential for improving patient services in hospitals of the community. We hope ways can be found to keep it moving toward its full target.

Admittedly the appearance of the situation is that the project was launched without adequate advance exploration of the problems to be solved and the obstacles to be overcome. Perhaps if more had been known of those things hearts would have been more faint. As it was, enthusiasm was high and the time seemed propitious.

At any rate the start was made, substantial sums were invested, and that's that. Now there is trouble because development has not been as fast as had been expected and Federal grant aid from the Public Health Service has been stopped.

As to the cutoff of Federal aid, we can only observe wryly that this is one of the risks attending dependence on Federal money for local programs. We are opposed to the use of Federal taxpayers' funds in such areas of local responsibility as this one.

We are glad that IHDA spokesmen have expressed no thought of abandoning the project. The great promise which attended the launching of it now seems more distant, but no less desirable.

One very distressing concern is that the rates charged to participating hospitals for the services of the computer center may need to be increased sharply. Hospitals have enough problems of increasing costs already. They don't need another.

The obvious hope would be that computerized bookkeeping and other services could be made to yield savings to the hospitals. Every possible avenue for making it do so, despite the present difficulties, should be explored.

We join in lamenting the crisis. We encourage IHDA and the participating hospitals to press on with the project, and wish them success in finding a way to cross the financial obstacle which now lies in their path.—*Indianapolis Star*, March 30, 1968.

Health Proposals

The New York Times

In his special message on health, President Johnson has recommended several new programs and fundamental changes in old ones which, together, will materially help to meet some of the nation's major health needs.

The President's new programs, while not so sweeping as they should be, would bring health care to a neglected segment of the poor that has never had it. To recite the statistics on infant mortality in this country is to reveal a national disgrace. In 1965 this nation ranked fifteenth in infant mortality.

Even in this time of budgetary difficulty it seems to us that Congress has no alternative but to approve the President's modest request for funds to provide health care for infants, as well as his more modest request for funds to expand existing programs making birth-control information available to women who seek it. Congress could well go beyond the President's proposals to make certain that community health facilities, with vital programs now atrophying from lack of money, are also adequately funded.

Considering the joint warning just released by the American Medical Association and the Association of American Medical Colleges that the shortage of doctors grows increasingly acute, Congress could also strengthen provisions the President has made for encouraging the expansion of medical colleges.

The President's plan for reducing the cost of drugs has deservedly attracted wide attention. Congress has explored the differences in price between some trade-name drugs and some generic-name drugs that are equally effective, and found great variations in price. The President seeks to establish an acceptable price range for drugs and to limit governmental reimbursements for drug costs to this range.

Physicians' fees and hospital costs have been rising far faster than the cost of drugs, and the President's proposals in this area are perhaps even more important. Present programs reimburse physicians for services rendered. Hospitals are reimbursed on a cost-plus basis. Neither method promotes economy. Doctors may render services not really needed and hospitals have little incentive for trimming costs. Changes the President has proposed would allow the government to experiment with ways of reimbursing doctors and extend cost-cutting incentives to hospitals.

Such proposals represent more than bandaids or braces for a faltering health system. The President has prescribed what amounts to corrective surgery.—*Indianapolis News*, March 15, 1968. ◄

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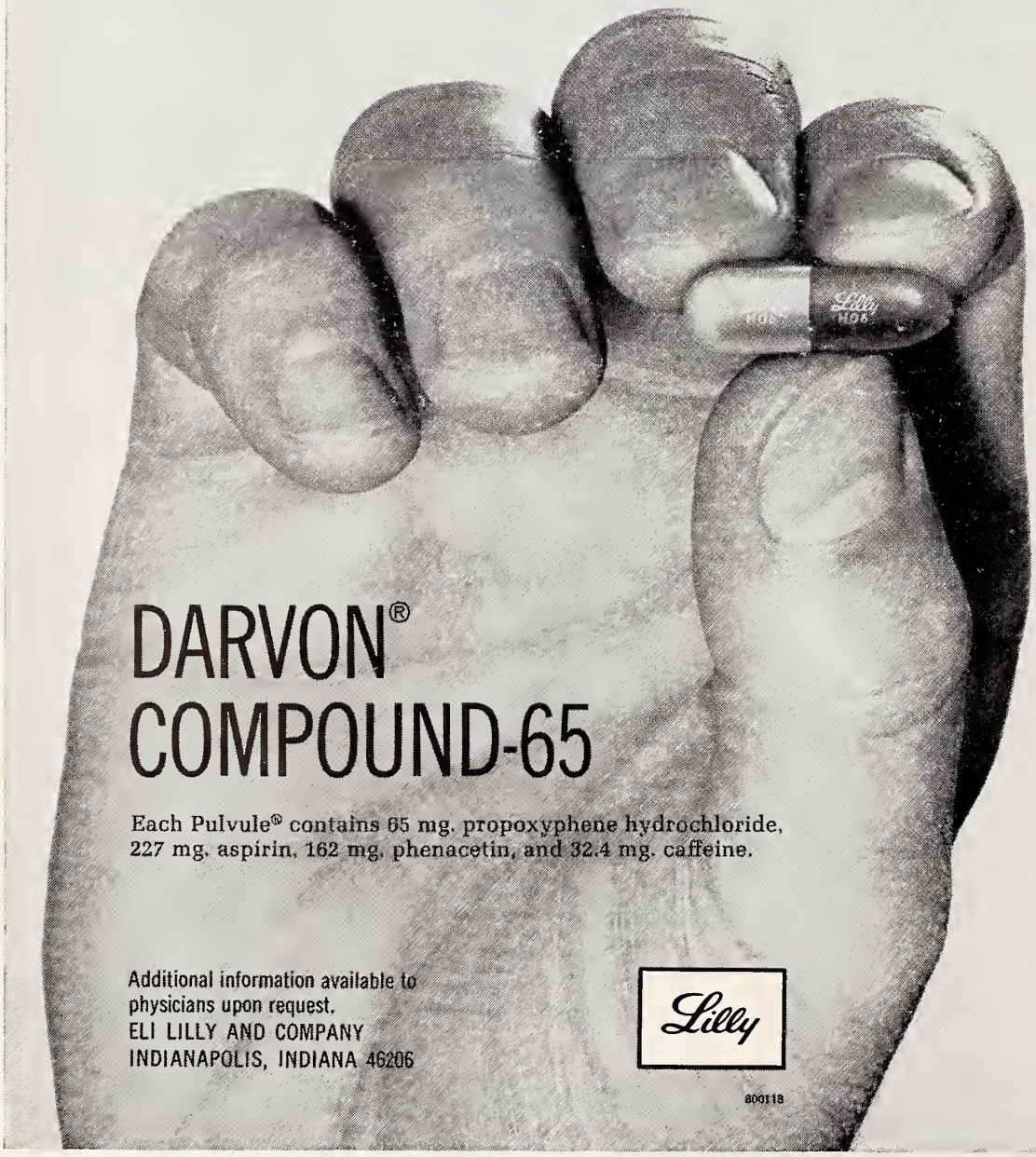

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Volume 61 — May 1968 — Number 5

About Our Cover

The Children's Pavilion of Methodist Hospital, Indianapolis, was built through the generosity of Nicholas H. Noyes as a tribute to his wife, Mrs. Marguerite Lilly Noyes. Both the beauty of this $4.5 million structure with its strictly "children's world" decor and the completeness of its health care facilities have been long-time dreams of Mr. and Mrs. Noyes, who provided the major portion of the funds for the new pediatric hospital. Mr. Noyes is a director of Eli Lilly & Co.

During the important period of planning and construction of the Children's Pavilion, the Pediatric Service of Methodist Hospital was under the capable leadership of Dr. Bertram S. Roth. His able successor as chairman of the pediatric service is Dr. John T. Young.

Providing medical administrative leadership in coordinating services within the Children's Pavilion is Dr. Gabriel J. Rosenberg, who left the private practice of pediatrics to become Methodist Hospital's first full time director of pediatric medical education. Methodist's 70-member house staff includes four residents in pediatrics.

The x-ray department in the new pediatric facility, staffed by the M. H. Radiologic Group, is headed by Dr. Robert E. Gerth, who is uniquely qualified both as a radiologist and as a pediatrician.

Among the many recent scientific developments incorporated in the fully air-conditioned structure are the special features of the x-ray and surgery areas which share the entire second floor. Included among the nine operating rooms are rooms for open heart surgery, cardiac catheterization and for dental and oral surgery. The post anesthesia recovery room, an out-patient cast room and classrooms for medical students are conveniently located on this floor.

The operating room equipped for open heart surgery is unusually large to accommodate all the required personnel and equipment. A small monitoring room for electronic equipment is adjacent to the operating room with a large window dividing them. Small pass-through doors in the wall between all operating rooms and the corridor make it possible to send specimens to the laboratory or have extra supplies sent into the room during surgery without compromising sterile conditions.

Dr. Howard A. Rusk, noted authority on treatment of the disabled, who was principal speaker at the Children's Pavilion dedication October 28, 1967, was high in his praise of the new pediatric facility. He said, "I think that this new hospital is the finest of its type that I have ever seen . . . not only the building but the spirit that permeates it. To see tender loving care come into its own as a primary therapeutic tool in pediatrics is indeed most rewarding." Dr. Rusk is professor and chairman of the department of rehabilitation medicine and director of the Institute of Rehabilitation Medicine, New York University Medical Center; associate editor of *Medical World News*, and medical writer for the *New York Times* in which he further acclaimed the uniqueness of the Pavilion.—**Jack A. L. Hahn, Executive Director, Methodist Hospital.**

Gastric rupture in a newborn is a serious complication. Early recognition and surgical treatment is often curative. Realization of the occurrence of the lesion is resulting in more frequent diagnoses.

Idiopathic Neonatal Gastric Perforation: Report of Six Cases

J. THOMAS TELLE, M.D.
Indianapolis*

WITH an increasing number of case reports of neonatal gastric perforation, a reasonably well defined syndrome is emerging which is significant to physicians charged with pediatric care—particularly to those interested in improving the survival rate of premature infants. The condition appears to be more common than originally suspected in addition to the fact that the remarkably consistent features of the syndrome have received very little attention. A premature Negro male infant who has an uneventful 48 hours followed by acute symptoms of abdominal and/or respiratory distress should be highly suspect. The six cases (five unreported) at the James Whitcomb Riley Hospital for Children and the Marion County General Hospital since 1960 exhibit these typical characteristics with surprising consistency. Early recognition can result in prompt surgical intervention and cure.

Review of Literature

Although Siebold[1] recorded the first case in 1825, 90% of the 163 cases have accumulated during the past quarter century.[2] Forty-three survivors have been reported since the first successfully treated cases in 1950.[3,4] Recently Inouye and Evans[5] presented an excellent review of 143 cases of neonatal gastric perforation. Their analysis indicates that the typical infant is a male (1.5:1) who is healthy at birth, but frequently premature (40%) or a twin (7.4%). The onset of the illness occurs during the first five days of life in 84% with the largest number occurring on the third day. Pertinent findings include distention with absent bowel sounds, respiratory distress and vomiting. Roentgen studies demonstrate pneumoperitoneum and point to the diagnosis in the overwhelming majority of cases. Fifty percent of the neonatal perforations involve the greater curvature with very few on the lesser curvature where spontaneous rupture is most common in the 45 adult cases.[6] Also of interest is an earlier review which indicates that over half of the infants are Negro (39/75).[7]

Only a minority of these cases are satisfactorily explained by an obvious factor such as intubation, trauma, distal obstruction or ulceration. Seventy-three of the 143 cases are "idiopathic perforation of the newborn" according to the criteria of Castleton and Hatch[8] who suggest that most cases are idiopathic and should be so classified. Included in this idiopathic group are those cases of undetermined cause plus those due to a "congenital muscle defect" since the existence of the latter entity is in some question. Shaw et al.[9] point out that potential gaps in the musculature exist normally and that the histologic absence of muscle after rupture may result from the retraction of muscle fibers secondary to distention. Thus for inclusion in the "idiopathic" group, Castleton suggests four standards: (1) newborn; (2) no evidence of ulceration; (3) no evidence of perforation secondary to intubation, trauma, oxygen therapy, etc.; (4) no distal obstruction, gastric vascular lesion or cerebral lesion. The six cases in this report are presented as meeting these criteria. The etiology of the idiopathic cases remains obscure although proposed explanations include trauma to a partially distended stomach, anoxia, etc.[2,10,11]

Case Reports

Table 1 reveals an excellent correlation between our "idiopathic" group and the syndrome described although the entire 143 cases are not idiopathic as noted above. All six infants were male, of age five days or less with only one birth weight exceeding 2500 grams. The majority of deliveries at MCGH are Negro, somewhat reducing the validity of the preponderance of Negro cases in this study. None exhibits a history of significant difficulty prior to the onset of the acute illness. Pneumoperitoneum is well demonstrated in all cases. The typical lesion at surgery is a tear or rent with no evidence of ulceration, etc. Two of the six survived.

* Resident in radiology, Indiana University Medical Center, Indianapolis 46202.

	AGE (days) RACE SEX BTH. WT. (gms)	CLINICAL DATA	ROENTGEN FINDINGS	SURGICAL FINDINGS	TIME PRIOR TO SURGERY AND RESULT
1 (1960)	3 days white male 3270 gms.	Did well after an uneventful delivery until third day — became markedly distended with respiratory distress (previously reported by Kaiser and King[20]).	Pneumoperitoneum with "football" sign.	2.5 cm. rupture at the cardia from greater to lesser curvature — thought to be due to "muscle defect."	Three hrs. after admission. Survived.
2 (1960)	5 days Negro male 2475 gms.	Mother had premature rupture of membranes. Infant received 0_2 at birth for transient cyanosis. Asymptomatic for five days when vomiting, distention, and increased respiration were noted just prior to discharge.	Massive pneumoperitoneum.	1.5 cm. perforation on the greater curvature (fundus) no evidence of ulceration, etc.	15 hrs. Died.
3 (1965)	4 days Negro male 2350 gms.	After uneventful birth (Apgar 9) infant did well until fourth day when distention and grunting respiration were seen—no history of vomiting, etc.	Pneumoperitoneum with "football" sign.	4 cm. rent on the greater curvature.	12 hrs. Died.
4 (1966)	2 days Negro male 2180 gms.	Apgar 8 at birth — did well until 48 hours when distention with absent bowel sounds and respiratory distress were noted. A gavage feeding at 24 hours was felt to be unrelated.	Pneumoperitoneum with "football" sign.	4 cm. rupture on the greater curvature at the cardia. Biopsy — absent smooth muscle and acute inflammation.	Four hrs. Died.
5 (1966)	2 days Negro male 2350 gms.	Mother spotted in third trimester. Infant had unremarkable course (Apgar 10) until distention and respiratory distress developed at 48 hours — no history of vomiting, gavage, etc.	Pneumoperitoneum.	1 cm. perforation on the greater curvature. Biopsy — normal muscle with acute inflammation.	Three hrs. Survived.
6 (1966)	2 days Negro male 1700 gms.	Uneventful 48 hrs. after Apgar 9 birth — mother was prediabetic. Acute onset with respiratory distress and distention.	Pneumoperitoneum.	2 cm. rupture on posterior gastric wall. Biopsy — absent musculature, peritonitis, and interstitial hemorrhage.	Five hrs. Died.

TABLE 1

The radiologist is in an excellent position to assist his colleagues in recognizing this rather consistent picture since the radiograph is the most important diagnostic aid. No doubt the rapid accumulation of cases in the past 25 years is in large measure due to the more frequent radiologic study of seriously ill newborn infants. Pneumoperitoneum is obviously not pathognomonic, but when associated with the factors cited above, diagnostic accuracy can be high. Twenty years ago Pendergrass and Booth[12] suggested that "at least one exposure be made in the erect posture", but failure to heed this fundamental advice probably accounts for numerous failures in diagnosis. Of course a lateral decubitus projection serves the same purpose. Nice and Mouton[13] have also emphasized obtaining supine and upright roentgenograms particularly in cases of distention and "respiratory distress" — a frequently misleading feature of this syndrome.

FIGURE 1
(CASE 3): supine. Pneumoperitoneum in the form of a "football sign"[14]—the gas forms an oval lucency and outlines the falciform ligament.

However, Miller[14] has demonstrated that pneumoperitoneum may be detected on supine films as the "football sign" —an oval lucency with the falciform ligament contributing

FIGURE 2
(CASE 3): upright. Pneumoperitoneum in a "saddle bag"[21] configuration produced by gas interposed between viscera and the confines of peritoneal cavity.

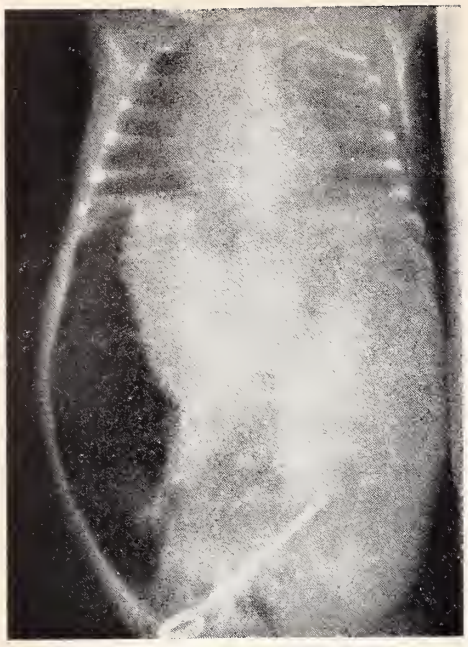

FIGURE 3
(CASE 4): Left lateral decubitus. An effective substitute for the upright in demonstrating pneumoperitoneum.

FIGURE 4
(CASE 4): supine. Again pneumoperitoneum is well demonstrated on this study alone — frequently this projection is the only one available for diagnostic evaluation.

FIGURE 5
(CASE 4): upright. Pneumoperitoneum of dramatic magnitude is the general rule in these six cases of gastric perforation.

to the "seam."

Pneumoperitoneum demonstrated in the first week of life justifies a presumptive diagnosis of gastric perforation when the clinical findings correlate well with the syndrome described above. Over half of the 300 reported spontaneous perforations in the newborn are gastric with no other site contributing more than 20% of the total.[10] In addition there are recent studies which indicate that gastric perforation is the leading cause of pneumoperitoneum during the first week.[15-17] This is in contrast to Thelander's[18] review of newborn perforations which listed only 16 out of 85 cases as gastric. The obstructive lesions of the gastrointestinal tract that present with vomiting and distention in the first week of life generally offer no problem in differentiation on radiologic grounds unless perforation results as a late complication.

Hopefully an improved index of suspicion will result in earlier use of proper roentgen studies inasmuch as time is a crucial factor. The survey of 75 cases by Reams et al.[19] noted a 46% survival when surgery took place within six hours while only 25% survived with surgery after 12 hours. It does not seem unreasonable to predict that an awareness of this disease entity plus knowledge of the necessity for prompt roentgen examination and surgical closure will result in future reports with an improved survival rate.

Conclusions

1. Neonatal gastric perforation is being recognized more frequently with the majority of cases classified as idiopathic.

2. The typical infant is a premature Negro male who does well until the third day of life at which time acute sympoms of abdominal and/or respiratory distress present. The six cases described in this report emphasize the consistency of the syndrome.

3. The prompt use of roentgen study in supine, upright and lateral decubitus positions demonstrates pneumoperitoneum in virtually every case.

4. Pneumoperitoneum in the first week of life associated with the typical clinical syndrome justifies a presumptive diagnosis of neonatal gastric rupture.

5. Early surgical closure is crucial for survival.

6. An improved survival rate is anticipated as more physicians become aware of the syndrome of neonatal gastric perforation.

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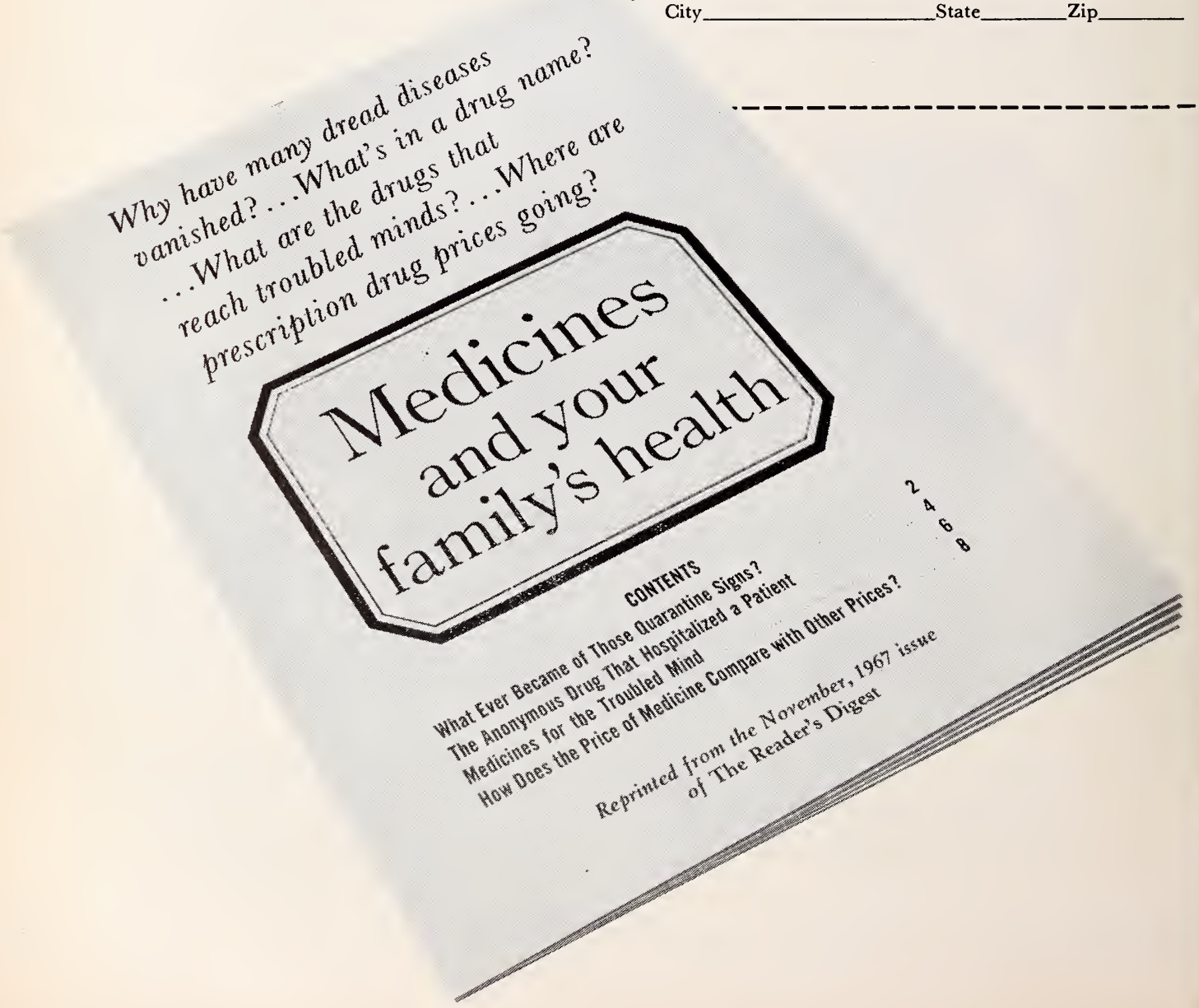
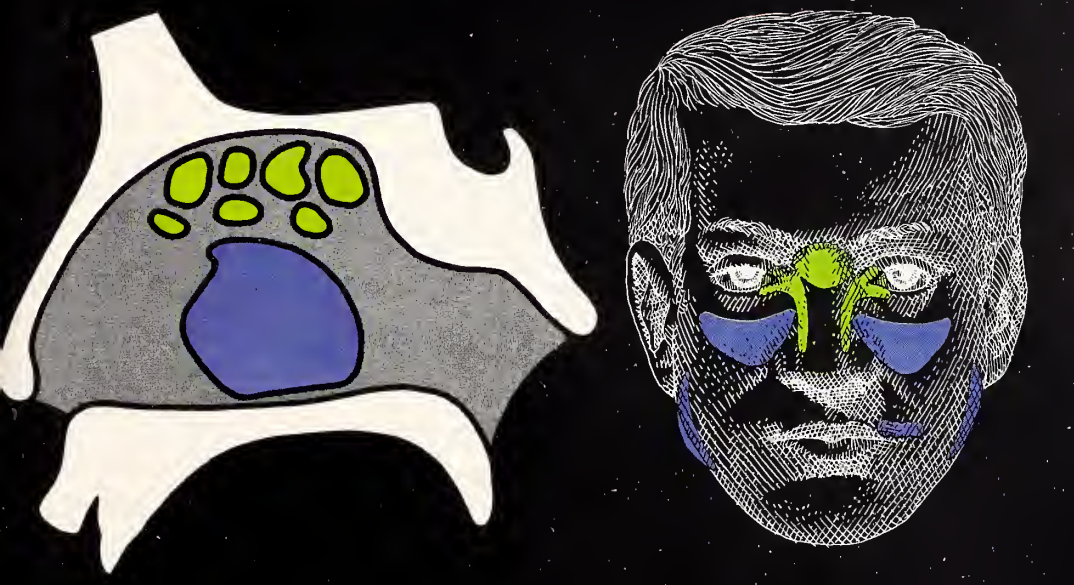


Sources of sinus headache

REGION OF SENSATION

FRONTAL SINUS—headache localized over the frontal region, commonly beginning in the morning. Eyes painful to touch, may be slight swelling over eyes, puffy eyelids.

SPHENOID SINUS—most difficult to diagnose. Headache or sense of pressure over vertex. May be pain in ear or mastoid region.



MAXILLARY SINUS—headache and tenderness under eyes at top of cheekbones, usually starting in early afternoon. Possible swelling of cheek. Pain in jaw and back teeth.

ETHMOID SINUS—headache, tightness in upper part of bridge of nose and well down its sides. Pain, deep-seated behind the eyes and in inner corners of the eyes.

TURBINATES—pain along medial and lateral walls of the inside of the nose. Headache in frontal region, along supraorbital ridge, a feeling of fullness in the head.

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Careful observation of postpartum patients does not demonstrate any increase in the infection rate as a consequence of vaginal examinations during labor. Patients examined frequently developed more infections but the overall rate was not increased.

Routine Vaginal Examination of the Intrapartum Patient

WILLIAM E. GRAHAM, M.D.
Indianapolis

SINCE the time of Semmelweiss, students of obstetrics have been taught the evils of vaginal examination of the the intrapartum patient. It has been suggested by Reis[1] in 1924 and more recently by Manning[2] in 1961 that perhaps the dangers of vaginal examination have been slightly overemphasized.

The purpose of this paper is to present the experience of a small hospital* during the year 1963, where intrapartum patients were examined by the attending physician and the nurses by the vaginal route. Since this paper presents a small series of patients and has no comparable control group, we can come to no valid conclusions. We intend to show our methods and results and not to prove or disprove the relative safety of our methods for other institutions.

Methods and Materials

All patients delivered at this hospital during 1963, either vaginally or by primary Caesarean section, are included. The repeat Caesarean sections were not included because they were not examined vaginally on the obstetrical unit prior to delivery. There are 430 patients included in this study, of which five were primary Caesarean sections (1.1%). The 15 repeat sections (3.3%) are not included. (The overall section rate was 4.5%).

Each patient admitted to the obstetrical unit and anticipating a vaginal delivery had a perineal prep done in the routine fashion with Phisohex soap and a safety razor. This prep was done prior to vaginal examination. The patients were cared for in the labor rooms, including vaginal examinations, until they were either ready for vaginal or abdominal delivery. Only three things were necessary for our vaginal examinations. The first was a glove pack containing two sterile right handed gloves. The second was a large metal cannister containing sterile 4x4 gauze squares and the third was a small plastic squeeze bottle of Phisohex soap. The patients were examined in the labor beds. The perineal area was scrubbed, using a sterile glove and 4x4 squares saturated with Phisohex. The examiner then changed to the other sterile glove and used Phisohex as a lubricant for the examination.

Results

The charts for all patients were reviewed for number of vaginal examinations, fever, clinical evidence of infection and culture reports. Patients who had fever which filled the criteria for morbidity or had clinical evidence of either pelvic or wound infection were considered infected patients.

The patients were arbitrarily divided into two groups. These groups are shown in Figure 1. There are 342 patients in the group which had six or less examinations and 88 in the group that had seven or more examinations. These two groups are contrasted as to number of infected patients and the infection rate expressed as a percentage of each group.

Figure 2 shows the distribution of the patients as to number of examinations. It also shows that there was a sharp drop in the number of patients examined seven times which served as our arbitrary dividing point between the two groups.

Discussion

Our technic of perineal prep and vaginal examinations seems to have been rewarded with no great increase in our infection rate over the rate quoted by other authors.[3-9] Perhaps low volume contributes to our "normal" infection rate.

Summary

1. The experience of a small hospital using routine vaginal examination of the intrapartum patient is

FIGURE 1

NO. OF EXAMS	PATIENTS	%	INFECTED CASES	INFECTION RATE
6 OR LESS	342	79.5	2	0.6 %
7 OR MORE	88	20.5	3	3.4 %
TOTAL	430	100.0	5	1.2 %

* Material for this paper was gathered from the 401st TAC Hospital, England Air Force Base, Alexandria, Louisiana. The author wishes to state that the thoughts expressed are his own and not those of the Department of the Air Force.

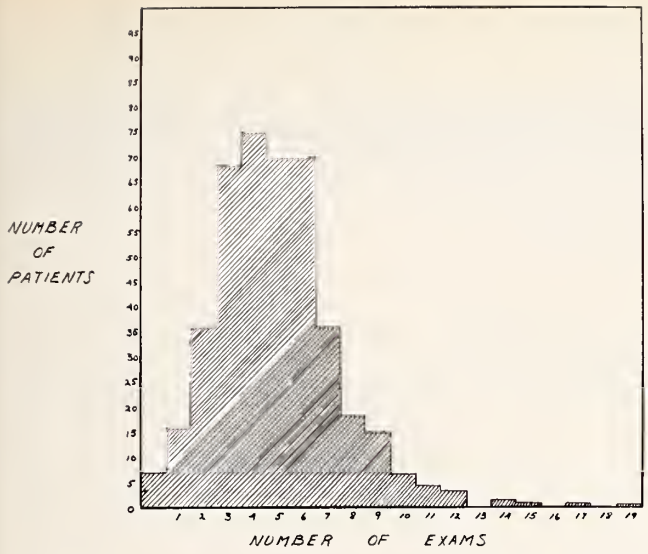

FIGURE 2

presented.

2. There were 430 patients included for the year 1963.

3. These patients were studied for infection after delivery. The overall infection rate was 1.2%. The rate of infection for patients examined seven or more times is 3.4% contrasted to a rate of 0.6% in those examined six times or less.

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Use and Abuse of Antibacterials in Urinary Infections

ROBERT A. GARRETT, M.D.
Indianapolis*

THE wide choice of antibacterial agents available (Table I) in urinary infections is not an unmixed blessing. With broader choice has often come insufficient understanding of the potentials and weaknesses of each of these agents. The choice of a particular drug must be preceded by valid evidence that an antibacterial is in fact needed, i.e., reasonable proof of the existence of infection. Administration of drugs on the basis of past infections or poorly obtained urine specimens (in the female) are examples of drug abuse. Factors in the choice of antibacterial drugs are listed in Tables II and III. Relatively minor uncomplicated lower urinary tract infections call for the simpler, cheaper agents such as sulfonamides, or urinary acidifiers with mandelamine, whereas upper tract involvement with systemic manifestations require more potent and specific drug management.

Drug effectiveness is obviously the prime factor in choice. Identification of the bacterial invader is worthy of careful determination to simplify the treatment pattern. Most strains of E. coli in the absence of stasis respond to most of the available drugs, hence drug choice may rest on severity and location of the infection by this organism. Proteus variants on the other hand regularly show susceptibility to ampicillin or kanamycin only. Pseudomonas infections, so often associated with stasis or foreign bodies, viz. catheters, or appearing as secondary invaders, may resist therapy by any but the polymyxin group of drugs (colistin). Inevitably, difficult infections will demand culture-sensitivity testing for guidance.

DRUGS AVAILABLE FOR UROLOGIC ANTIBACTERIAL USE

Penicillin-Ampicillin
Streptomycin
Kanamycin
Colistin
Polymyxin
Tetracycline
Oxytetracycline
Chlorotetracycline
Chloramphenicol
Rondomycin
Cycloserine
Cephalothin
Erythromycin
Oleoandomycin
Novabiocin
Mandelamine
Furadantin
Sulfonamides
NegGram (nalidixic acid)

TABLE I

Recurrent Reinfections

The treatment of recurrent reinfections is quite often different from management of chronic infections. The former often envisage relatively short periods of therapy with eradication of source when possible, whereas the latter may demand intensive and extensive medication over many weeks or months. Mode of entry of the offensive organism where known may materially influence drug choice. For example, a young woman subject to recurrent "cystitis" consequent to defloration and continued sexual activity may well need a drug achieving significant antibacterial levels in the urine but not in the renal tissues. Long term low dosage of furadantin (100 to 200 mg/day) will often suffice to control repeated recontamination of urethra and bladder until such time as the subject may gain a measure of intrinsic antibacterial control.

The majority of recurrent infections in female children and women are reinfection rather than chronicity. Hence, careful search for complicating structural abnormalities such as ureteral reflux must precede repetitious drug therapy. Long term, low dosage drug therapy may be justifiable in such situations as ureteral reflux in young female children. Here reinfection is prevalent until chronic infection follows a severe pyelonephritic episode. With a low dosage drug regimen, reinfection can often be prevented by achieving effective urine drug levels. In some children, reflux will cease and drug

URINARY INFECTION FACTORS INFLUENCING CHOICE OF DRUG

1. Organ involved.
2. Intensity of infection—acute or chronic.
3. Smear findings.
4. Culture—sensitivity.
5. Past experiences with drug (effectiveness or allergy).
6. Presence or absence of obstruction or stasis.
7. Presence of foreign body.
8. Renal function.
9. Drug cost and mode of administration.
10. Length of treatment contemplated.

TABLE II

* Professor and Chairman, Department of Urology, Indiana University Medical Center, Indianapolis 46202.

FACTORS INFLUENCING EFFECTIVENESS OF AN ANTIBACTERIAL AGENT

1. Bacterial sensitivity.
2. Route of administration.
3. Route of elimination.
4. Blood level.
5. Protein binding.
6. Chemical splitting.
7. pH of urine.
8. Duration of treatment.
9. Dosage.

TABLE III

therapy can be terminated. The second infection in female children warrants uro-radiologic study. The first infection in boys demands prompt investigation rather than total reliance on drug administration due to the high incidence of congenital anomalies producing urinary stasis.

Renal function capability may play a large role in therapy. Renal azotemic patients accumulate drugs normally excreted by the kidneys to toxic levels limiting the dosage if not usefulness of streptomycin, kanamycin and the polymyxins (colistin). Certainly combinations of these drugs should be rarely, if ever, used in such patients due to their renal toxic and neurotoxic tendencies. Other lesser side reactions may limit drug choice. We are all seeing young adults today with unsightly discoloration of teeth due to excessive use of the tetracycline groups of drugs in their childhood.

Adjusting urinary pH to a level favorable to specific drug action may be helpful in infection control. Acid pH levels will enhance, if not fully activate, the antibacterial effectiveness of mandelamine, nitrofurantoin, tetracycline and nalidixic acid. Streptomycin on the other hand is more effective in an alkaline medium.

Errors in drug therapy are categorized in Table IV. Perhaps the most difficult to avoid is that of misuse due to excessive patient or parental demand. While new drugs offer much in future control of infection, we are all aware of the strong tendency to acquaint ourselves with them by their early use, and often "wear them out" prematurely. For example, all of us recall the resurgence in antibacterial effectiveness of chloramphenicol after its withdrawal from heavy usage some years ago.

In summary, the selection of the appropriate antibacterial agent in urinary infections not only hinges on the organism involved, but on the organ involved, severity of infection and other factors mentioned above. Careful consideration of all aspects will improve therapeutic efficiency. ◄

ERRORS IN ANTIBACTERIAL USE

1. Use of the wrong drug.
2. Wrongful usage in viral and other unresponsive diseases.
3. Inadequate dosage.
4. Neglect of drainage — surgical, etc.
5. Failure to discontinue drug in face of toxicity.
6. Excessive attraction to new drugs.
7. Treatment of fever empirically (high incidence of neoplasia, etc.).
8. Use of overly expensive drugs.
9. Drug usage unsupervised.
10. Excessive demand by family or patient.
11. Use of route of administration incompatible to patient.

TABLE IV

VA Reports

The number of veterans hospitalized for emphysema and chronic bronchitis, lung diseases common to the aging, has more than doubled in eight years, the Veterans Administration reports.

CLINICOPATHOLOGIC CONFERENCE

Case No. A-12, 267

Discussant: Dr. Stuart Kleit

FIRST ADMISSION: A 20-year-old white male entered the hospital with a month's history of a "flu-like" illness, characterized by malaise, nausea, vomiting, diarrhea and "coffee-colored" urine lasting about a week. Three days before his admission he presented to his physician because of a pale complexion, easy fatigability, dyspnea, periorbital and dependent edema. At his local hospital he was demonstrated to have a BUN of 98 mgm%, hemoglobin of 3.8 gm% and oliguria; he was transfused with two units of whole blood and transferred to the I.U. Medical Center. There was no previous significant medical history.

On admission, he was critically ill, pale, somnolent, dyspneic and tachypneic. He demonstrated facial edema and minimal dependent edema. The pulse was 120, blood pressure 160/100, respirations 38, and temperature 100° F. Fundoscopy demonstrated retinal sheen and a single linear hemorrhage, moderate arteriolar narrowing, and no papilledema. Inspiratory rales were heard throughout the lungs. Neither cardiomegaly nor gallops were described. The remainder of the examination was unremarkable.

The urine was amber and cloudy with a specific gravity of 1.013 and a pH of 6; +4 albumin; negative sugar. The sediment contained 50-80 RBC/hpf and many RBC, waxy, and coarsely granular casts. Uroscreen test was negative; B-streptococci were grown in culture from the urine. Hemoglobin was 6.6 gm%, hematocrit 18. The white cell count was 13,300 with 3% bands, 82% polys, and 15% lymphs. BUN was 78 mgm% but a repeat determination in six hours was 105 mgm%. Serum sodium was 139, potassium 6.6, chloride 117, and bicarbonate 15.5 mEq/l. Calcium and phosphorus were 7.2 mgm%. Serum protein was 5.4 gm% with an albumin of 2.4 gm%. Erythrocytic sedimentation rate was 62. ASO was 166 and never exceeded 330; CRP negative. LE preparations were negative. B-streptococci were cultured from the throat. Serum iron was 25 micrograms % and iron-binding capacity 245 micrograms%. Coomb's test was negative. Bone marrow was normal. Electrocardiogram showed sinus tachycardia. A chest film demonstrated severe, bilateral pulmonary edema.

Peritoneal dialysis was instituted, and after six exchanges with the removal of approximately 3000 cc of fluid the patient was alert and in no distress. The chest was clear to auscultation; BUN was 87 mgm%. Over the subsequent three-week period, the urine output rarely exceeded 200 cc/day, and the urinalysis was not significantly altered. 20-60 RBC/hpf were consistently noted. Peritoneal dialysis was repeated every three to four days because of increasing azotemia, hyperkalemia and hypervolemia. Several blood transfusions and penicillin were administered. Bilateral retrograde pyelography demonstrated normal collecting structures on both sides. On the 19th hospital day an open renal biopsy was performed and demonstrated severe, subacute glomerulonephritis. Postoperatively, scanty amounts of bloody urine were produced. The patient received 80 mgm/day Prednisone, and intermittent peritoneal dialysis was continued.

The patient's mother was demonstrated to have 16 compatible blood types of 17 tested. Imuran 250 mgm/day was administered on the 50th and 51st hospital days. On the 52nd hospital day, the patient's mother's kidney was transplanted into the patient's right iliac fossa. The blood supply seemed adequate and urine flow began promptly.

Postoperatively, blood pressure was 120/80 and the patient recovered from the procedure without complications. During the first 18 hours, the urine volume was 6415 cc, with a specific gravity of 1.014, 1+-2+ protein, many RBC and 0-3 WBC/hpf. Urine sodium was 20, potassium 98 mEq/l. BUN was 42 mgm%. Serum sodium was 142, potassium 4.0, chloride 105 and bicarbonate 29 mEq/l. WBC count was 10,000.

On the second postoperative day the urine volume was 2680 cc and urinalysis was unchanged. No "plasma cells" were seen in the sediment. Urine sodium was 126 and potassium 36 mEq/l. Urine protein was 1.5 gms/24 hrs. BUN was 18 mgm%. On the third postoperative day, the creatinine clearance was 34 ml/min. During the next two weeks, urine volume averaged 2500 cc/day and urinalysis remained constant. Urine sodium was less that 100 mEq/l, potassium around 20 mEq/l, and protein less that 1 gm/24 hr. Creatinine clearance rose to 75 ml/min. BUN remained at 17-20 mgm% and serum electrolytes were normal. The patient continued to feel well and examination remained normal: he was afebrile and BP was 120/80.

Prednisone and Imuran were continued, but the dosage reduced.

On the 13th postoperative day the temperature was 99° F., blood pressure was 148/100, pulse 100. The area of the transplantation was not tender. BUN was 33 mgm% and creatinine clearance 45 ml/min. Urine volume was 2200 cc day. The urine was cloudy, and had a specific gravity of 1.012. 5-6 WBC, 50-60 RBC, and several large plasma cells were identified. The urine sodium was 126, potassium 34 mEq/l, and urine protein 700 mgm/24 hr. WBC was 2700. Prednisone was increased to 100 mgm/day and hydrocortisone injections given. Actinomycin C, 170 micrograms was administered intravenously. All laboratory values returned to normal, and the blood pressure returned to 120/80 and pulse to 80.

On the 15th postoperative day, bilateral nephrectomy was performed. The right kidney weighed 144 gm, the left 150 gm. The patient continued to do well.

On the 24th postoperative day, the temperature was 99.3° F., blood pressure 150/100, pulse 124. The transplantation area was not tender. The BUN rose from 33 to 52 mgm% in five days and the creatinine clearance decreased from 75 to 50 ml/min in the same interval. Urine volume was 1680 cc/day and urinalysis demonstrated several plasma cells. Urine sodium was 204, and potassium 40 mEq/l; urine protein was 800 mgm/24 hrs. White cell count was 35,750 with young forms predominating. Prednisone was increased from 60 to 100 mgm/day, Imuran was increased from 50 to 100 micrograms/day. Actinomycin C, 200 micrograms, was administered intravenously. Subsequently, the vital signs returned to normal. Plasma cells were no longer described in the urine sediment. Urine electrolytes returned to previous values. BUN remained at 50-60 mgm%. Creatinine clearance remained at 50-60 ml/min. White cell count remained at 25,000. An intravenous pyelogram demonstrated good graft function. The patient was discharged on the 34th postoperative day, and continued to take Imuran 100 mgm/day. Prednisone 60 mgm/day, and an aluminum hydroxide gel.

The patient was seen weekly in the Outpatient Renal Clinic for six weeks, where he was noted to be asymptomatic on every occasion. Vital signs remained normal. Urine volume averaged 2500 cc/day. Urinalysis consistently demonstrated a trace of protein, acid pH, specific gravity of 1.009, 20-40 WBC and 100 RBC/hpf. BUN was 60 mgms%.

Hemoglobin was 10.5 gm% and white blood cell count 10,700 shortly after discharge. Prednisone dosage was dropped to 30 mgm/day and Imuran continued at 100 mgm/day.

His last two visits were characterized by a BUN rise to 84 mgm%, a drop in hemoglobin to 7.6 gm%, but no change in symptoms or physical findings other than minimal tenderness over the transplant area. Prednisone was increased to 200 mgm/day and Imuran to 200 mgm/day.

Two days after his last clinic visit, the patient complained to his family of malaise and dyspnea. That night he awoke from his sleep profoundly dyspneic, and was rushed by ambulance to I.U. Medical Center where he was dead on arrival.

DR. NOBLE: For the Medical Grand Rounds today we have asked Dr. Stuart Kleit of the Renal Division of the medicine department to discuss the clinical aspect of the clinicopathologic conference.

DR. STUART KLEIT: This was the first, and the last, admission for this 20-year-old male whose disease I've chosen to divide into several phases. The first phase concerns his initial illness which was characterized by the onset of renal failure, over a period of a month with oliguria, many red blood cells and red blood cell casts in his urine. The ASO titer was never elevated and the blood pressure apparently was not excessive. When he came into the hospital, he had a BUN of 105, and a low hematocrit. His electrolytes were abnormal with hyperchloremia, hyperkalemia and a decreased CO_2. His calcium was low and the phosphorus was high. LE preps were negative. Why don't we see the chest x-ray and the retrograde pyelogram?

DR. ROSCOE MILLER: The first chest x-ray at his admission shows bilateral pulmonary edema (Figure 1). The lung fields are almost consolidated with fluid. The heart is about normal in size—a little bit enlarged, perhaps. The next x-ray shows his abdomen, and there is a very hazy density over the entire abdomen, with the air-containing loops of small bowel grouped in the middle floating on fluid (Figure 2). This x-ray merely shows a lot of ascites.

After dialysis, one sees a hydropneumoperitoneum in the right upper quadrant. One sees a fluid level, the diaphragm and the liver underneath the diaphragm, and the clearing of the lung fields greatly (Figure 3).

DR. KLEIT: The patient was dialyzed, as Dr. Miller mentioned, and while it successfully controlled his uremic syndrome, his urine output failed to increase. I think the course of his disease is classic for rapidly progressive glomerulonephritis. In this form of glomerulonephritis, the onset is rapid, the patient is oliguric when he is first seen, and he remains oliguric throughout the entire course. The disease is almost 100% fatal. It is usually not found in children, but occurs in the age group between 20 and 30.

It is frequently difficult to differentiate between this disease and oliguric acute post-streptococcal glomerulonephritis. Acute glomerulonephritis as you all know is found

FIGURE 1
THIS first chest x-ray shows bilateral pulmonary edema.

predominently in children but the patients who have oliguria in the childhood age group are rare. However, as one moves into the adult population, oliguria may be present in larger numbers. I don't have very much real evidence to say he does not have post-streptococcal glomerulonephritis other than the fact that his ASO titer did not rise, and that the disease which is described here fits progressive glomerulonephritis well. The age group is also right. It has been suggested that steroids be used on these patients, as well as Imuran. There is no evidence that either of these measures helps.

Dialysis buys time for patients with oliguria and acute glomerulonephritis. Usually if the patient has oliguria for more than 10 days, the recovery rate is rather small—and if recovery occurs, the patient afterwards will have chronic renal disease. Recently a case was reported in which a patient had 27 days of oliguria and survived to have normal renal function some 22 months later. The patient just mentioned, at the time of oliguria had a renal biopsy which showed very minimal findings.[1] The longest reported case of oliguria with acute glomerulonephritis is 46 days with some recovery. Thus in acute glomerulonephritis even prolonged oliguria is not incompatible with recovery. In rapidly progressive glomerulonephritis this is usually not true.

On the 51st day of hospitalization the patient was transplanted, without the removal of his own kidneys. With our more recent knowledge of transplantation we would proceed somewhat differently today. While in rare cases patients who have active disease of this type are transplanted prior to removal of their kidneys, and a period of dialysis, most groups will not transplant them without prior varying periods of nephrectomy and dialysis. This is because of a tendency for a recurrence of the original disease in the transplant.

As you are aware, this was a problem among identical twins who were not treated with immunosuppressive therapy. By and large, this has disappeared. However, reviewing homograft patients one discovers that among the patients who had recurrence of their original disease were those who had rapidly progressive glomerulonephritis. Dr. Frank Dixon, at Scripps Institute, has studied some of these cases and he reports a very interesting patient who demonstrated recurrence of glomerulonephritis in his transplant. The patient was followed over a several month period and multiple

FIGURE 2
A very heavy density is evident over the entire abdomen, with the loops of small bowel floating on fluid.

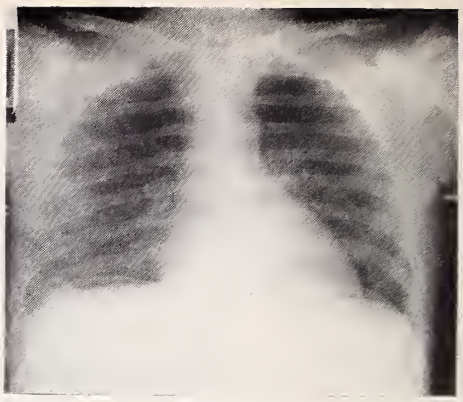

FIGURE 3
AFTER dialysis, the lung fields cleared greatly and the hydropneumoperitoneum may be seen in the right upper quadrant.

studies of his serum were done for glomerular basement membrane antibody. None was found. The patient then had a bilateral nephrectomy.

Several days after nephrectomy glomerular basement antibody appeared in his serum in large amounts. He then was transplanted. Within 30 minutes of the time he was transplanted, the glomerular basement membrane antibody began to disappear from his blood. A biopsy of the transplant at that point showed that the antibody was attached to the glomerulus. Over the next several days the antibody disappeared completely from the blood and the patient was left with a transplant which had his previous disease.[2]

Following transplantation the patient in our protocol had a very gratifying course for the first few days. His glomerular filtration rate rose and his BUN fell. The finding of 1.5 gm of protein in his urine in the first 24 hours is a little higher than one likes to see, and if this had continued, we would have some evidence for recurrence of his original disease. While proteinuria is a sign of rejection, early massive proteinuria may be a sign of recurring disease. Late massive proteinuria is a sign of chronic rejection. At any rate this decreased, and then on the 13th day the patient had what appears to be an acute rejection phenomenon. The temperature was

elevated. The creatinine clearance fell. The BUN rose. The urine volume didn't change very much. Plasma cells were noted in the urine. The blood pressure, which had been normal, rose.

The acute rejection phenomenon, which occurs usually between the 7th and the 45th day in homotransplant patients, has been studied rather extensively and many tests have been suggested for discovering whether this process is present. Figure 4 shows some of these tests. As you will note, the BUN rises. Using the BUN alone as a sign of rejection is a problem, because as you are aware there are many things that can make the BUN rise other than a decrease in renal function. This is especially true in patients who are on high dose steroids. A rise in the serum creatinine or even better the creatinine clearance is more significant. Changes in the clearance of PAH are very accurate in determining whether rejection has occurred. A decreased clearance of PAH is an early sign. Blood pressure elevations usually occur late. The urine volume decreases, and there is a more complete reabsorption of sodium and as a result a retention of sodium. Therefore the urine sodium usually falls to levels of about 10 mEq/l. In this case, it did not fall; rather it rose during the rejection crisis. The temperature rises. The xenon washout test shows a change in blood distribution throughout the kidney. Proteinuria tends to increase. The transplant may be tender. This patient's transplant was tender apparently most of the time. Lysozymes appear in the urine. The renogram becomes abnormal, and the arteriogram will show redistribution of blood vessels. Renal tubular cells appear in the urine. Lymphocytes, plasma cells and eosinophils have been reported in the urine. There is some question as to whether this is an early or late phenomenon. As far as the renal biopsy is concerned the picture of acute rejection shows a vascular phenomenon in which one sees an intimal thickening of the vessels and fibrinoid necrosis of the vessels with some ischemia of the glomeruli as well as interstitial infiltrates of plasma and lymphoid cells. On rare occasions one will see some primary glomerular changes. This is not true in the patients who have chronic rejection, that is, patients who live beyond 30 days and who continue to have rejection as a smoldering process. In these patients one does find glomerular changes at the basement membrane. Hematuria is another sign of rejection, although you will note this patient had hematuria almost throughout his disease.

FIGURE 4
TESTS suggested for discovering whether or not rejection is present.

REJECTION		
BUN. ↑	PROTEINURIA	RENAL SCAN
CR ↑	WT. GAIN	LYMPHOCYTES IN URINE
C_{CR} ↓	TENDER TRANSPLANT	PLASMA CELLS IN URINE
C_{PAH} ↓	URINE Na ↓	EOSINOPHILS IN URINE
BP ↑	LYSOZYME	RENAL BIOPSY
URINE VOL ↓	RENOGRAM	LDH ↑
T ↑	ARTERIOGRAM	HEMATURIA
Xe WASHOUT	RENAL TUBULAR CELLS IN URINE	

After his rejection was successfully treated with Actinomycin C and steroids, he had a bilateral nephrectomy. On the 24th day of hospitalization he again had a rejection crisis and Imuran and Prednisone were increased. Following this treatment there was a return of his blood pressure and temperature to normal, but you will notice that the renal function really didn't change very much and stayed decreased. We now have a man who has had two rejection crises in the first month. There is some significance to the number of early rejection crises that do occur and the ultimate outcome of real transplantation, but usually four or more are significant. There appears to have been some permanent damage due to rejection. The question again arises as to whether the patient had some type of recurrence of his original disease. You can't prove that at this point, and statistically it probably is not happening. The other thing is that the BUN was elevated beyond the range ordinarily expected with this particular creatinine clearance, and this possibly was related to the catabolic effect of steroids.

He then was discharged from the hospital. One unexplained event noted during his hospitalization which was a little worrisome is that he had a 36,000 white count. At the time of discharge his white count was 25,000, despite the fact that he was on fairly large doses of azothioprine. Despite this he did fairly well as an outpatient and was followed for about six weeks. On his last two visits it was noted that his hemoglobin had fallen and his BUN had risen. Do we know what his creatinine was during those periods? It isn't on the protocol. Is he having continued chronic rejection over this period of time? Probably this is occurring. The fall in hemoglobin and the BUN elevation could be due to occult gastrointestinal bleeding in view of the large doses of steroids. It was obviously thought that he was having further rejection, and his steroids were greatly increased as was his Imuran. He then went home, had some malaise and dyspnea and expired rather suddenly. We are left with the problem of why he died.

Now, I really can only guess as to why he died. His only symptom was dyspnea, and it points to something in the cardiopulmonary area, but it is really pretty nonspecific. In studies of sudden death in the general population—that is, patients who aren't sick prior to death—arteriosclerotic vascular disease pre-

dominates, followed by cerebrovascular accidents, and way down the list, patients who have pneumonia and meningitis. Usually the patients who have pneumonia and menigitis don't die suddenly, but rather they have not been seen by a doctor until just prior to their deaths. Pulmonary embolism is a cause that has to be considered here. It's a disease that's about three times more frequent in females, and of course it is a postoperative complication. If it were the cause here one would have expected it to occur slightly earlier than it did.

We can approach this problem from another angle and ask, "Why do people who have transplants die?" Deaths following transplantation can be divided into two groups. First are those occurring in the immediate postoperative period and for 30 days following surgery. During this period there are multiple causes of death. Renal failure, however, is an extremely unusual cause due to dialysis backup. Agranulocytosis related to azothioprine was common several years ago but is rarer now that we have learned to use these drugs more efficiently. Sepsis is still a great problem, and we will get back to that in a minute. Acute hepatic failure has been known to occur. Occlusion of the mesenteric arteries has occurred, and thromboembolic phenomena are common. Gastrointestinal bleeding; hemorrhagic pancreatitis have been reported as well as myocardial infarction. However, many of these vascular problems have been found only in the older patients, and they are by and large the reason for the higher mortality in the group above age 45 noted in some series.[3]

There are several patients who are of special interest, and these are the ones who had cadaver transplants and then developed carcinoma, histoplasmosis or tuberculosis, apparently obtained from the donor. One donor had carcinoma of the lung, the transplant was put into the recipient and the transplanted patient then developed extensive carcinoma of the lung.[4] This has also occurred with histoplasmosis and tuberculosis.[5] I don't believe that occurred in this case because this kidney came from his mother, but this is something that has to be considered and it rules out patients who are suffering from these diseases as transplant donors.

Review of the deaths in Starzl's series reveals several interesting facts. The first is that patients with transplants can't survive without immunosuppression, and yet some of them can't survive with it. Unfortunately, due to the immunosuppressive agents there is an increased incidence of infection. If we look at the non-infectious deaths, by about the 70th day post transplant they have all occurred, and following this almost all deaths are due to infection caused either by pseudomonas or fungus. After the 80th post transplant day, death from *Pneumocystis carinii* appears. So we can divide the deaths into three phases: The first phase is associated with deaths from technical accidents and non-infectious problems. The second phase in which death occurs from infection; and the third phase in which death may be associated with *Pneumocystis carinii*.[6]

In analyzing the deaths in the Colorado series it was noted that 45% of all deaths were associated with or related to mycotic infections. The median day of onset of mycotic infection was day 67, and the disease lasted from three to 212 days. All but one of the patients had a febrile course. The correct cultural diagnosis was not obtained in over half of the patients pre-mortem. Central nervous system disease was present frequently but only diagnosed once prior to death. The patients had very nonspecific findings on physical examination. Some of them had convulsions, but most of them just felt irascible, had some personality changes, and in general didn't feel well.[7]

Candida were the most frequently involved fungi with Aspergillus second, then Nocardia, and finally mixed infections with Candida, Aspergillus, Histoplasma and Nocardia. The lung, brain, kidney, and other organs were involved. In the case of Candida some patients had gastrointestinal involvement. Several factors were noted to increase the risk of developing fungal infections. It was more frequent in males then females. Age was of great significance: the older the patient the more likely he was to develop a fungal infection. The use of an unrelated donor was also indicative of an increased risk as was the occurrence of leukopenia.[7] These last two might really be indications that more medication had to be used to keep the transplant functioning. This patient's kidney came from his mother, but from all appearances either he wasn't well matched or there were some other problems involved as large doses of immunosuppressive agents had to be used.

The experience with infections that Dr. Starzl and Dr. Rifkind's report is very similar to what is found in patients who have hemotopoietic cancer and who are on chemotherapy. However, for reasons that we won't go into at present, it is the opinion of some authorities that the high dose of steroids rather than the dose of azothioprine is probably the cause of the increased incidence of infection. The median dose of steroids in their group was 60mgm%. This patient was on 200 mgm at the time of death. While the duration of steroid therapy did not correlate well with infections of the fungal type, it did correlate well with those who had Pneumocystis. Other organisms can cause infections including pneumonia, peritonitis, meningitis, pyelonephritis and septicemia. However it has been noted that gram positive infections are extremely unlikely to occur in these patients.

We are dealing with a population of bacterial organisms which by and large are resistant to therapy, the

prime bacterial villain being Pseudomonas. The typical pulmonary lesions in these patients were bilateral infiltrates or very thin-walled abscess cavities.

Aside from the possibility of fungal infection of the lung and pulmonary embolus, there are other lesions to be considered. The first is cytomegalic inclusion virus. While there is evidence to suggest that about 70% to 90% of patients who have transplants are infected with cytomegalic inclusion virus, there are no reported cases in which this directly caused the death of the patient. It is probable that we carry this virus with us from childhood.[8]

The second is *Pneumocystis carinii*. This organism which is probably a protozoa produces a pneumonia characterized by an alveolar capillary block. Cyanosis is usual, tachypnea is prominent, but there are minimal physical findings. The chest x-ray shows a general haziness, especially alongside the cardiac border. Usually it occurs after the 70th day of transplant, and death occurs some time after the patient becomes symptomatic. It is possible that this did occur in the patient we are discussing here.[9]

The third problem has to do with so-called transplant lung. This is a disease of unknown etiology which may occur any time during the course of transplantation, although it usually occurs early. It uniformly follows a reduction in the dose of steroids, and responds to an increase in the dosage of steroids. It may resemble a mild upper respiratory infection. The patient usually has a temperature and several deaths have been recorded. The diagnosis is made by exclusion.[10] Another report of acute death following transplantation has been that by Najarian and his group in California who describe two patients with fat emboli who died rather suddenly as a result of these emboli. Both of these patients were in the hospital at the time they had their embolic phenomena. It has been thought that this problem and transplant lung may be related. The suggested etiology is an increase in fat in the liver, due to steroid therapy which then is suddenly released when steroids are decreased. While it would be nice to say that this patient had fat embolic phenomenon and thus explain his sudden death, there are no cases reported in which steroids weren't reduced prior to the time of death.[11]

So we are left with either pulmonary emboli, fungal disease, *Pneumocystis carinii* or some other unrelated problem which I haven't discussed. I would like to say that I think probably fungus will be present; the patient may have ruptured a lung abscess which accounted for his sudden demise. Pneumocystis cannot be ruled out. As far as the transplant is concerned, I think he will have some signs of chronic and acute rejection with fibrinoid degeneration of the arterioles, some infiltrates and possibly some basement membrane thickening. I don't know what to say about recurrent disease; I think it is a possibility, but I think it is unlikely.

I might say something about the treatment of infections in these people. It is an extremely difficult problem. In most series, the etiology of the infection is not known prior to death in over half of the patients, and usually the organisms that are found are resistant to therapy. It is important to remember that they are predominantly gram-negative. As far as the Pneumocystis is concerned, only one transplant patient has had this diagnosis made prior to death, and we don't know whether current proposed therapy will be successful. It has been suggested pentamidine isethionate may be helpful.[12] Mixed infections are extremely common.

In terms of fungal diseases, one is presented with another problem. The only real antifungal agent that we have today of any potency is amphotericin B which is extremely nephrotoxic. Every patient, treated with amphotericin B develops at least some mild permanent damage to their kidneys. Since what we are trying to do is save the kidney, we are caught in a therapeutic dilemma. Hamycin which is a congener of amphotericin, can be given orally, but it is also nephrotoxic. There is a drug apparently under study called X-5079C. This drug is hepatotoxic; however, while it works well for North American blastomycosis, it doesn't seem to do very well with Candida or Histoplasma except on occasion.[13]

We have been faced recently with this problem in a patient with recurrent pulmonary infiltrates. Fortunately these disappeared spontaneously. I'm not sure they went away permanently.

DR. HUNTER A. SOPER: Thank you very much, Dr. Kleit. Dr. Miller has a couple of interesting x-rays that we want to see, and then we will have some questions from the audience.

DR. MILLER: This x-ray shows a normal intravenous pyelogram before kidney transplant, (Figure 5) and then the next x-ray shows his chest at this time as perfectly normal (Figure 6). The next x-ray will show the kidney transplant in the right lower quadrant; you see it right above the bladder (Figure 7). You see an excreting dye, a contrast material that was injected intravenously, and you see it coming well into the bladder here. The kidney is overlaying the sacrum and so it doesn't show too well. On the next x-ray it shows better, excreting into the bladder (Figure 8). That was shortly before he returned to the hospital.

DR. SOPER: I think we can take just a couple of minutes for a few questions. Does anyone have anything he would like to ask Dr. Kleit? There are a couple of things that came to

FIGURE 5
THIS x-ray shows a normal intravenous pyelogram before the kidney transplant.

my mind. When you are dealing with an oliguric patient. how long do you let them go in their oliguria before you contemplate biopsy to find out what's going on in the kidney?

DR. KLEIT: The problem here is really related to what you suspect has caused the oliguria. In the patient who has the picture of acute tubular necrosis, we usually wait 30 to 40 days prior to biopsy. This is based on the fact that between the 9th and 17th day diuresis usually occurs; by the 25th day, most of those who are going to diurese will have done so. As far as those who have a picture which is like glomerulonephritis, or rapidly progressive glomerulonephritis, I think the time is 30 days also. Some biopsy these people much earlier, some much later. I think it depends on what you think you are going to do or accomplish following the biopsy.

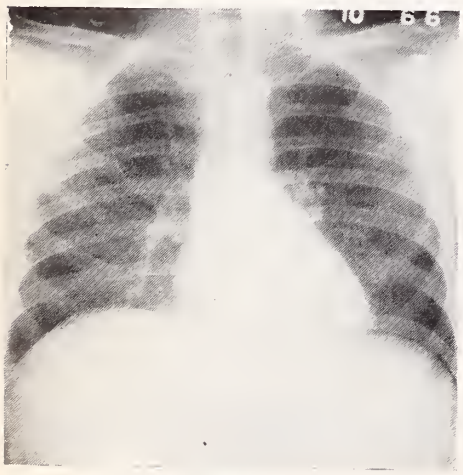

FIGURE 6
CHEST x-ray is perfectly normal.

DR. SOPER: How about open biopsy versus closed? How do you make a differentiation on this problem?

DR. KLEIT: There are very few contraindications to closed biopsy. A single kidney is one of them. Hypertension of severe degree is another. No patient whose blood pressure is over 110 diastolic should be biopsied until his BP is controlled. Usually a pregnant patient should not be biopsied. No patient who has a history of bleeding disorder or has abnormal bleeding studies should be biopsied until further evaluated. However, the patient who is oliguric, who has been dialyzed and has fairly normal clotting studies can be biopsied without undue risk.

A PHYSICIAN: Were chest x-rays obtained during the outpatient clinic?

DR. SOPER: As far as I know there were none. How else might he have been followed, Dr. Kleit, that might have been helpful in picking up trouble early?

DR. KLEIT: We have now been getting chest x-rays on these people fairly frequently. They may not show physical signs of infection. When this is present I don't see how one can really find out other than by repeated chest x-rays.

Discussion of Pathology

DR. SOPER: Let's go ahead now to the pathology demonstration. Dr. Wilens, of the Pathology Department, is here to present their findings.

FIGURE 7
THE kidney transplant is evident in the right lower quadrant.

DR. SIGMUND L. WILENS: By way of preamble it should be stated that successfully transplanted, functioning kidneys have been carefully scrutinized in a number of reports. It is agreed that even though no definite episodes of transient rejection occur, such kidneys are seldom entirely normal. The degree of injury increases as the survival period following transplantation becomes prolonged. In other words, even when transplanted kidneys are not rejected, they show no evidence of becoming fully

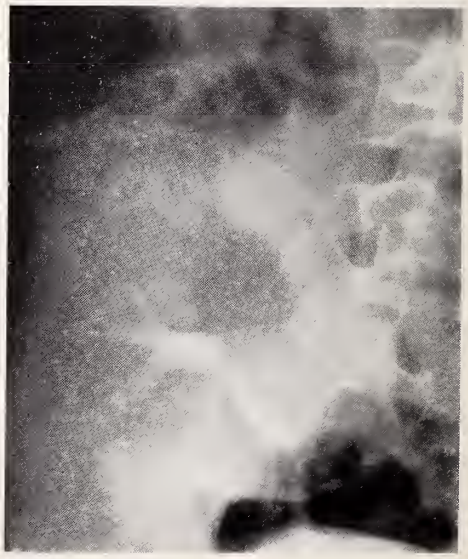

FIGURE 8
THE kidney demonstrates better on this x-ray, excreting into the bladder.

adapted to their new environment.

In case reports where it is claimed that transplanted kidneys developed the same lesion as the host's own kidneys, the so-called membranous type of glomerulonephritis has usually been involved. But there are case reports in which the transplanted kidney developed this type of nephritis even when the host's own original renal condition was very different, such as polycystic disease or chronic pyelonephritis. This raises some doubt about the actual transferral of glomerular disease to the transplant even when the type of disease is the same as was present originally in the host.

We turn now to the renal findings in the case under discussion. The nephritic kidneys removed 24 days after the renal transplant was grafted were somewhat reduced in size weighing 150 and 140 gm respectively. In end-stage glomerulonephritis, the kidneys are often much more shrunken and may weigh only 60 or 70 gm; however, the weight of a kidney does not necessarily reflect the amount of functioning renal tissue it may contain.

The transplanted kidney examined at necropsy 70 days after it was grafted was large and weighed 250 gm. It is unlikely that the maternal kidney weighed that much when it was transplanted. Enlargement of transplanted kidneys is not unusual. They can become edematous and contain dilated tubules or interstitial cellular infiltrations that will cause them to increase in size and weight. The transplanted kidney in this instance had a widened cortex and a pale smooth surface. It was obviously viable. The arterial, venous and ureteral connections were freely patent and in excellent state as judged anatomically.

A summary of the pathological findings is shown in Figure 9. The renal lesions include focal areas of glomerular fibrosis, interstitial cellular infiltrations and intratubular hemorrhages. The heart was enlarged

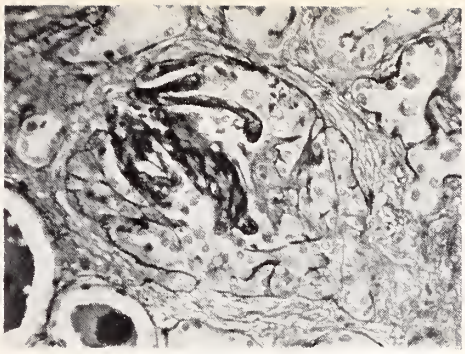

FIGURE 9
GLOMERULONEPHRITIS in original biopsy specimen. Proliferating epithelial cells fill a large portion of the glomerular space and compress the remaining capillary loops.

and weighed 480 gm. The predicted fungal infection was present in the lungs, hilar lymph nodes and a few glomerular capillaries. This particular species of fungus, the Cryptococcus, was not mentioned and I cannot find that this organism has been described as a complicating infection in other cases of renal transplantation at necropsy. The lungs were very heavy, firm and fluid-containing. It is apparent that the terminal acute episode of respiratory distress was related to this extensive pulmonary process.

Sections of the original renal biopsy taken before immunosuppressive therapy was begun show very severe, diffuse glomerulonephritis with marked crescent formation. In many instances the large epithelial crescentic masses compress and partly obliterate the tufts. The tubules are distorted in shape and many contain casts, erythrocytes, or polymorphonuclear neutrophils. Modest numbers of plasma cells were easily identified among leukocytes in the interstitium. This point should be stressed because these immunologically active cells could not be found in the kidneys that were removed subsequent to renal transplantation after immunosuppressive therapy was begun, nor could they be recognized in the transplanted kidney at necropsy. Even in glomeruli that contained large crescents, portions of tufts were still vascularized.

Sections of the patient's own diseased kidneys removed surgically some 50 days after renal transplantation showed marked progression of the glomerular lesions (Figure 10). The crescents have become largely fibrous, although a few well-formed ones still persist and the tufts are shrunken, largely fibrous, poorly vascularized and frequently adherent to Bowman's capsules. They are still fairly cellular however. Some of this change may represent disuse atrophy as well as progression of the inflammatory process. It is likely that these kidneys ceased functioning after the transplant was inserted and that blood flow through them was greatly reduced. It is difficult to find any erythrocytes in these badly damaged glomeruli.

Sections of the transplanted kidney removed at necropsy 70 days after implantation do not show any evidence that the original glomerular disease has been transmitted to the homograft (Figure 11). In fact, most of the glomeruli are almost normal. Close scrutiny often reveals minor changes. This varies from very slight thickening of the basement membranes to focal areas of fibrosis and adherence to the capsules. Some of these fibrous areas are ovoid and nodular (Figure 12). They have obviously been present for some time and probably date back to the two transient periods of threatened rejection on the 13th and 24th days after transplantation. It should be added at this point that the vascular

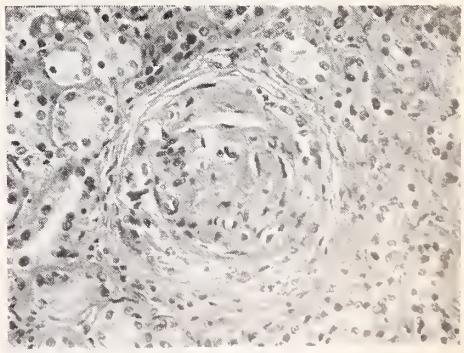

FIGURE 10
GLOMERULUS in kidneys removed surgically after transplantation of homograft kidney. The tuft is shrunken, avascular, fibrous and partly obliterated.

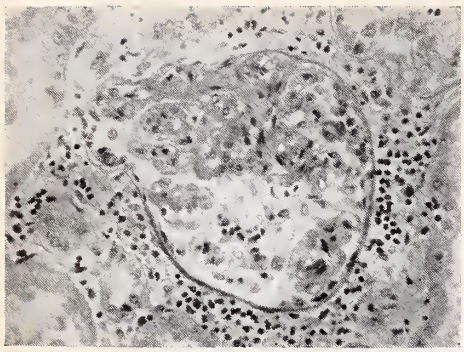

FIGURE 11
GLOMERULUS in transplanted kidney at necropsy. The capillary walls are irregularly thickened and portions of the tuft are united to the capsule. Lymphocytes and mononuclear leukocytes have infiltrated into the tissue adjoining the tuft.

changes described as characteristic of rejection, namely fibrinoid necrosis and perivascular cuffing by inflammatory cells, were not present in this kidney.

There were, however, scattered interstitial cellular infiltrations around many glomeruli and between tubules. In a few instances the latter appeared to be damaged by these cells. Most of the cells had small dark-staining nuclei and very little cytoplasm and thus appeared to be lymphocytes. Some, however, were large and had abundant cytoplasm. The possibility that these might be atypical or immature plasma cells was considered but in Giemsa preparations they proved to be eosinophilic myelocytes. No mast cells were found in toluidin blue stains.

The third significant abnormality was the finding of masses of agglutinated erythrocytes, some with the "ghost cell" appearance, in a fair number of convoluted tubules (Figure 13). These red cell aggregates seem to be impacted and stagnant, not loose or dislodgeable as they generally are in glomerulonephritis. These various changes might have led eventually to considerable damage to the involved nephrons and impaired function even without immunological rejection. Trichrome stains showed that there was already some increase in interstitial connective tissue.

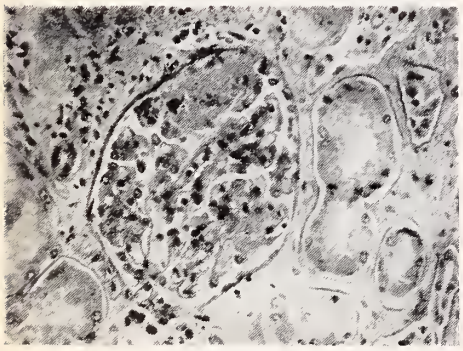

FIGURE 12
SUBCAPSULAR dense nodule in otherwise normal glomerulus of transplanted kidney.

Sections of the heavy, watery lungs disclosed innumerable double-contoured spores of the Cryptococcus growing in what might be called pure culture with remarkably little inflammatory response in the lung tissue (Figure 14). As the discussor indicated, these patients are at the mercy of many kinds, and often unusual, parasites. The usual granulomatous response to the Torula organism, resembling that of tuberculosis, is lacking. The failure of defense mechanisms to become evident is probably related to immunosuppressive therapy and the organisms have flourished as they might on a loaf of stale bread and just as rapidly. Gomori stains confirm the presence of the fungus. The Cryptococcus is one of the few fungal organisms that is easily identified in tissue sections because it is the only one that has a heavy mucoid covering in which the spores seem to be suspended. This material is sticky and as buds separate from the fully formed spores they remain attached to stringy masses of this mucicarmin-positive material. As previously noted, this particular organism has not been involved in other fatalities associated with renal transplantation, nor was it included among the fungal infections found in lymphoma patients under chemotherapy.

Before inviting questions from the audience, I would like to point out that autopsy examination was limited to the kidney, heart and lungs.

DR. KLEIT: Were the changes in the kidney those of glomerulonephritis?

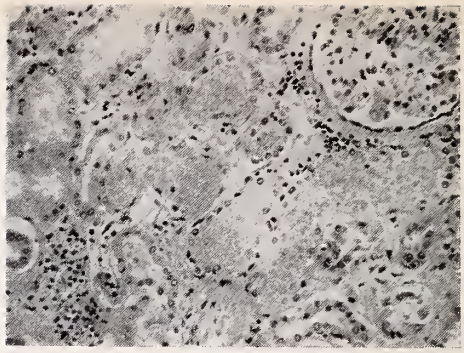

FIGURE 13
AGGLUTINATED erythrocytes with "ghost cell" appearance in lumens of convoluted tubules of transplanted kidney.

DR. WILENS: No, they were not.

DR. SOPER: I thought the slides were unusually good. What stains were used?

DR. WILENS: I believe you are referring to ones stained with periodic acid-Schiff's reagent. This is a technic developed largely by Dr. McManus in Alabama and when he was at Bloomington. It is a good stain for glomeruli and basement membranes. We also used a variety of polychrome methylene blue stains.

A PHYSICIAN: Were the lungs grossly consolidated?

DR. WILENS: I did not see them myself, but the protocol description indicates that they appeared to be homogeneous and solid.

A PHYSICIAN: Was there evidence of pleurisy?

DR. WILENS: There were about 200 cc of clear fluid in each pleural cavity but no exudate.

DR. KLEIT: Recently there was

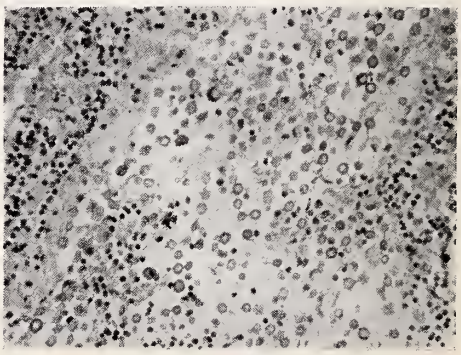

FIGURE 14
CRYPTOCOCCUS spores in mediastinal lymph node. Mucicarmin stain.

an article on Cryptococcosis in the general population, as I recall in Kansas City. No transplant recipients are mentioned. I can't recall ever seing a patient who had this reported. There apparently is a high incidence of Cryptococcosis in pigeon-lovers.[14] I can't really say very much about Cryptococcosis in this particular situation except that this is the type of organism one would expect to find.

I'd like to say two other things. First of all, the membranous change is probably a sign of chronic rejection and not of recurrence of disease.[15] Secondly, I would like to say a few words about the future of transplantation. We are standing right now on the edge of an era in which transplantation will become common. If we take a look at the series over the last several years, one thing becomes apparent: each year the people who are doing this kind of work do a little bit better.

A review of the findings of the last published *Transplant Registry* for the period ending January 1, 1967, shows that 68% of sibling donor kidneys are surviving in recipients after one year. This means the transplant is functioning—not just that the patient is alive. Patient survival itself is slightly higher. Kidneys donated by parents to their offspring were slightly less successful with a 62% survival. Other blood relative's donations did not fair as well. Cadaver kidneys survived one year in 39% of recipients. The worst record was made by unrelated living donors with only 27% surviving. The use of unrelated living donors at least for the present has been discarded because of this experience. There seems to be nothing gained by using them over cadavers.[16]

After a three-year-period, both sibling and parental donor kidneys are surviving in approximately 50% of recipients. By comparison about 35% of cadaver transplants are functioning after three years in patients treated with local graft irradiation in addition to other immunosuppressive therapy. An analysis also was made of all cases of related donors but excluding those in which infection and technical problems killed the recipient. It was determined that the probable one year theoretical success rate with currently available immune suppression is about 80%. This is almost exactly the same as the actual survival rate in monozygotic twins. A similar analysis of unrelated donors revealed that the same potential is probably present in cadaver recipients treated with local x-ray.[16] There have been a number of more recent unpublished series in which this type of survival has been approached.

In conclusion we currently have available two means of treating patients who have renal disease which is potentially fatal: they are chronic dialysis and transplantation. I think both of them have a great deal to offer. Transplantation when it works and works well relieves the patient of many of the problems that he has on chronic dialysis; however, the life expectancy at this point is largely unknown. I would say that in the future there will be development along both lines and that we can expect improvement in both modalities of treatment. There has been a recent report which suggests that a billion dollars over a period of five years will have to be spent to help all the patients currently requiring treatment both in transplantation and dialysis. The magnitude of the medical, ethical and financial problems are large but I am sure they will be solved.

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The Case of the Martial Maquisard

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IN French, the *maquis* refers to the scrub trees and underbrush covering uninhabited terrain. In present day usage, the term, "maquisard" applies specifically to the World War II French guerrilla fighters waging relentless resistance against the occupying Nazis. Our patient was to acquire other labels such as, "mordant", "magnificent", "mulishly militant", etc., but that was to come later.

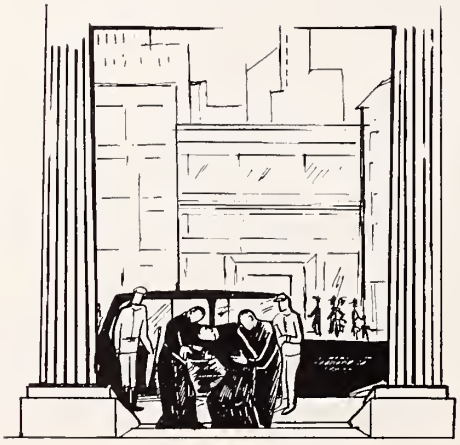
His entrance to our hospital was a spectacular "happening" long to be remembered. The sleek, custom-made limousine of the most expensive foreign brand extant screeched to a halt only minutes after we had been alerted by a frantic phone call. The chauffeur *and* the liveried footman leaped out; the passenger door swung open. First to emerge were two clerics, sober black robes, white collars and all. Between them, they cradled a third cleric: limp and unconscious. At a rapid trot, the apparently dying patient was carried to the emergency room. In response to "Code 9" sounded on our loud speakers, the totally equipped cart had been wheeled into its niche; the full complement of paramedical personnel was standing by; both the medical residents and the intern had joined me.

Edematous Ecclesiastic

The diagnosis was obvious at the most cursory first glance. The pastor appeared to be a well preserved man in his late sixties. The engorged face was a deep purple; the eyeballs were popping out, glazed and staring unseeingly with widely dilated pupils. Each strangling sigh brought up whitish froth, bubbling and dripping over the distended neck veins.

Acute pulmonary edema creates a syndrome that—once seen—can never be forgotten. Seldom does a doctor have the full textbook picture thrust upon him with such unceremonious speed! The responsibility is awesome; immediate maximal therapy is of the sheerest essence: it forms the crucial difference between either restoration to useful life or a gruesome death!

We all sprang into well rehearsed, perfectly co-ordinated action. The blood pressure was a systolic of something higher than 300 mm. of Hg; the diastolic was 170! The oscilloscope was flashing a RSR of 160; some left axis deviation was present. Rotating tourniquets were applied to both legs; simultaneously, needles went into both arm veins. Blood was drawn for the usual complete analyses: c.b.c., sedimentation rate, electrolytes, LDH isoenzymes, SGOT, sugar, BUN, etc.. The venous pressure was monitored; a rapid phlebotomy of 500 cc. was done, the vital fluid being stored for a possible later return. The Foley catheter was slipped into the bladder.



The arm vein received, stat., a combination of 30 mgs. of morphine, 0.5 gm. of aminophyllin and 100 cc. of 50% glucose. This is, in my opinion, basic therapy that is not being given today with the total promptness it deserves. Granted that, in the presence of bronchial asthma, morphine can (and does) kill. In *cardiac* asthma, leading authorities of today* still affirm that there is no more *immediately* acting, more decisive therapy available. The great Dr. Frederick Tice drilled the routine into all his associates; he proved its verity on occasions too innumerable to count.

As an addendum, it is worth noting that, when faced by these sudden, monstrous hypertensive storms,

* *Rheumatic and Coronary Heart Disease*, edited by Charles P. Bailey, J. B. Lippincott Co., Philadelphia, 1967. See also 10th edition of Price's *Textbook of Practice of Medicine*, etc., etc..

he was an advocate of cisternal puncture. The rapidly burgeoning cerebral edema would be relieved by allowing the CNS fluid to spurt out until the flow would be reduced to an intermittent drop.**

We intubated our patient and aspirated the frothy fluid filling the bronchi and upper respiratory passages. The O_2 tube was slipped down to the primary bifurcation; the life giving gas was poured in at 8 liters p/m.

We could have proceeded to a tracheostomy but the maneuver proved not to be needed. The ticking minutes were witnessing a near miracle of improvement! The constantly monitored blood pressure was down to the 190/110 range: the heart rate decreased to under 140/minute; the pupils began to contract as the venous engorgement started to lessen: the colossal venous pressure was definitely returning to normal levels. The all but dead man seemed to be on the verge of regaining consciousness!***

Cenobitic Convert

While the team had been so purposefully active, the English speaking cleric companion was sketching in for us Pastor G.'s background history. He came from an ancient Burgundian family that had managed to stay on the French side of the shifting Franco-German border. Over the centuries, the Guillards became ingrained French patriots with a detestation of the very word "Allemand", German. Pastor G.'s ancestors marched with Napoleon's legions. His grandfather had been wounded at Gravelotte in the war of 1870. At the turn of the century, his father had been an ardent Dreyfusard. In World War I, teen-aged G. was a volunteer St. Cyr cadet. The bloody carnage had turned his mind to God. He became a Franciscan priest even though he was almost the last surviving male Guillard. When Pope Pius XI negotiated the 1933 Concordat with "that Boche, Hitler", G. became so enraged that he actually converted to Lutheranism! In World War II, he fought valiantly with the French rear guard that was so dreadfully decimated by the Nazis as they turned the Maginot line.

The cleric giving me the information said he and Pastor G. were the only surviving officers of their regiment. That was where they had first met; together, they had repudiated the Vichy collaborationists and joined the maquis underground.

Throughout the Nazi occupation, they had been dedicated companions. Of their original cadre of over a hundred people, these two were—yet again — the only ones to emerge physically intact!

Militant Maquisard

In the post-war period, they strove mightily to realize their ideals. It was in 1966 that Pastor G. had collapsed suddenly while giving a sermon. He was rushed to a Paris hospital where he stayed a little over a week. He had rallied quickly and "felt just fine." He was *militantly mulish* about refusing to undergo the elaborate work-up suggested to him by the attending physicians.

In this summer of 1967, they had come to the United States as delegates to a world-wide Lutheran Synod. The question of ecumenism was only one of the items comprising a far ranging agenda. The Atlantic crossing by ship had been very pleasant and relaxing. Monsieur G. had come with his wife and teen-aged daughter; he had never looked better.

This very morning, there had been a rather tiring session. However, they had had a fine luncheon break and then had rested. At the afternoon meeting, Pastor G. was a principal speaker. He had risen to his feet and talked with his usual brilliant eloquence. At the end of a quarter of an hour or so, he paused and leaned over the lectern as if to gather his thoughts. A long minute later he appeared to go blank. The next thing witnessed by the horrified audience was the sight of the speaker slumping slowly to the floor of the dais! That was less than an hour ago; the rest I knew.

Whether it was our energetic therapy or whether it was an Act of God, our patient had reversed his course at the very brink; he was improving by the minute. Also, our laboratory data were beginning to trickle back. The white blood count was 20,000; the LDH was 1640; the SGOT was only 37. The VMA of the urine was borderline elevated only. As we have already indicated, the EKG showed only some LBB block with some left axis deviation.

** In those pre-antibiotic days, irrigation of the subdural spaces was standard procedure, e.g., in cases of septic meningitis. Saline was injected *into* the cisterna magnum and aspirated *out* through the simultaneously positioned lumbar puncture needle. Today, many regard cisternal punctures as a very risky anachronism. However, they are really performed quite easily; in my opinion, it is a maneuver that should not be relegated to the scrap heap of history.

*** Today's physicians are seldom confronted by the spectacle just described. Circulation is controlled by 1) the heart, 2) the vessels, 3) the volume of the fluid and 4) viscosity. Usually, we can forestall total collapse by using *in time* thiazides, rauwolfia, spirolactones, steroids, Hg diuretics plus other drugs and devices familiar to us all. Our armamentarium continues to be enhanced by such additions as ethacrynic acid and furosemide to say nothing of anticoagulants and fibrinolytic agents whose indications are still being debated.

So dramatic a scene *should* have yielded more substantial clues; it was amazing to look at all the blanks we drew.

Within another hour, Pastor G. had become fully himself again. O_2 was now administered by nasal catheter only. He was breathing easily; our questions were being answered in fluent English. He had recall only of having "suddenly felt dizzy" while talking. There was no pain but he had sudden difficulty in taking a breath. Yes! This was very akin to his Paris experience of the preceding year. Yes! The attending physicians at that time wanted to perform many "tres formidable" tests but he had rejected the notion. Pastor G. did not seem to realize how near his brush with death had been then as well as now. In fact, he was apologizing for having been "so much trouble!"

About this time, his wife was admitted to the bedside. Madam G. spoke no English whatever but she did bring with her the medicines her husband had been taking since the May, 1966, episode. They were digitoxin and a diuretic. It was just as well that we had *not* undertaken rapid digitalization. Of course, that is a hazard always confronting the physician facing an emergency patient without knowing what had gone on before.

By now we were able to relax. The patient could not have responded more satisfyingly. We gave him a parting dose of 2.5 mg. of Serpasil; then, we turned him over to the Intensive Care Unit. Although he ceased being my professional responsibility, I made it my business to drop in for a chat almost daily. On the third day of his upstairs stay, Pastor G. sustained a slight but unmistakable left hemiparesis; with it, there was some dysarthria and mild mental confusion. Within 48 hours, this episode vanished completely leaving only some gnawing questions. Had it been a vasospasm? an embolism? a floating pedunculated thrombus partially blocking a vital artery? I did not dare to take the time and perform a regitine test during the height of the crisis. I had thought that the VMA of the urine would tell us a good deal; well! that was my error.

Obdurate Oracle

We all had rather definite speculations re the underlying pathology threatening our intriguing patient. Still—where was the proof positive? In this scientific age we have developed fine diagnostic procedures such as angiography, isotope and enzyme studies of various body fluids, contrast dyes, tomography, etc., etc.. But such studies require the consent of the patient. Our Paris colleagues had had the same ideas and had approached Pastor G. after the 1966 episode. On this point, the patient remained as maddeningly mulish as ever. His obduracy was absolute, "I've come to the U.S.A. with a specific mission; already, I've been delayed. Within the month, I'm scheduled to return to Paris.

"I promise you, gentlemen, that — back home—I'll allow the doctors to do whatever they list. Back in Paris, I'll have the time; here, I just do not."

We could pontificate re a possible pheochromocytoma* (chromaffinoma).

More likely, there was the much greater likelihood of arterial obstructions: stenotic or vasospastic vessels —other surmises such as pedunculated thrombi, showers of emboli (from where?). But how could we be justified in starting the patient on anticoagulant or thrombolytic medication on an almost idle speculation? Without the necessary, pinpointing tests, we would be guilty of mayhem and malpractice! The chief of the service, the attending physicians, his devoted colleagues—but no one could budge the *militant maquisard*!

So our friend went out of the hospital on a signed release. Indirectly, I heard that he had gone to Chicago, St. Louis and other stops on his preplanned itinerary. And then: I got a brief note from the American chairman of the Lutheran Synod.

"Regret that we have just received news of Pastor G.'s sudden death in North Carolina. . .no details. . .I shall speak at the funeral on Monday. . . ."

I had been expecting this sort of news; still, it was a bit of a shock as I had acquired a genuine liking for this *mordantly magnificent* maquisard. My ego was flattered when I learned that I was the only New York City M.D. notified of Pastor G.'s demise. The letter came just the day before I was to leave for South America. I was going on a cruise that would be (pure concidence, of course) in Caracas, precisely when the First South American Congress for Population Studies was to hold its meetings.**

Upon my return to New York City a month later, I found in my mail a personal note written for Madam G. in English. Enclosed with the note was a printed four page summary of the service conducted in his memory. I was rather surprised to learn that he had been interred right there in North Carolina: far overseas from his beloved native heath, France. There was considerable biographical data which, however, was irrelevant to the medical precis on our late patient. I sat down and wrote to the American chairman of the Synod asking him

* These catecholamine produced sudden hypertensive crises can be very spectacular. In the paroxysmal attacks, the patients are usually in the older age brackets. These individuals usually have severe headaches, pallor and perspiration (which Pastor G. did not have). Also, the terrific pulmonary edema does not come up so suddenly. However, the urinary VMA *WAS* borderline.

** "The World Population Explosion," A. Lieberman, *Medical Proceedings of South Africa*, Vol. 13, #2; Jan. 21, 1967; pp. 35-39. Text of speech delivered to the Transvaal Medical Association, Sept. 8, 1966.

whether he could furnish me with information of just how Pastor G. had died and what the autopsy findings (if any) were.

Postmarked Postmortem

More than a month elapsed and I had about given up expecting an answer to my queries. And then: there was a very nice, courteous letter and a photostat of the death certificate! Pastor G. had collapsed quite suddenly while giving a speech. As he had had no time to have any medical care locally — he was DOA at the hospital—the coroner's physician had to perform an autopsy. It was most informative! Cause of Death: *Massive thrombus* occluding entire pulmonary artery. Due to: extensive arteriosclerotic disease productive of "Numerous arteriosclerotic plaques including one partially obstructing the right renal artery. Additionally, there was a *pedunculated* thrombus at the origin of the coeliac artery. . . ."

The final picture is clear enough! However, we are left with some puzzlers. Was the large thrombus in the pulmonary artery (present as a plaque *partially* occluding the pulmonary artery) present when we saw him in New York? Did it contribute to the two premonitory spectaculars, first in Paris, and then in the emergency room where I first saw him? Or: did that pedunculated thrombus float over the coeliac artery closing it temporarily and thus initiating the tremendous hypertensive crisis? If so, then our vigorous therapeutic steps might have been really needless! As the thrombus floated free of the obstructed orifice, the patient would have recovered spontaneously—had he lived long enough without our efforts (which is doubtful).

Also, the discussion in the symposium on "Rheumatic and Coronary Heart Disease" to which I have already alluded (Reference **) makes sound, practical sense. The authorities in it were in agreement that we:

1). should not hesitate to do arteriographic studies to pinpoint obstructions in the arterial tree.

2). When found, undertake even very drastic surgery, if possible.

3). use anticoagulants much more freely than has been considered prudent. With Pastor G., this therapy *probably* would have prevented the final lethal thrombus on the preexisting plaque.

4). *Fibrinolytic* agents are still very much in dispute. Yet, the experts were almost in consensus in their opinions that such agents will be in ever greater use within the next decade. In certain places and in very poor risk (surgically speaking) situations, judicious efforts along these lines might prove very rewarding. As of now, there simply is not enough data on which a definitive judgment can be based.

To conclude on so uncertain a note is very anticlimactic. I cannot help it. I can say that I made the casual contact ripen rapidly into a most rewarding knowledge of a fascinating personality. I am also a lot less certain of many things which I had taken for granted previously. I hope you are still with me as I share my reflections with you! ◄

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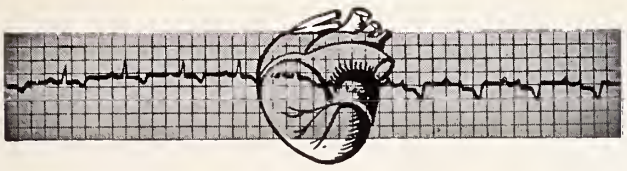
Electrocardiogram of the month



Presented as a regular feature of The JOURNAL, Electrocardiogram of the Month is a series of short talks on cardiovascular diagnosis and treatment, edited by the staff of the Krannert Heart Research Institute, Marion County General Hospital and the Department of Medicine, Indiana University School of Medicine, Indianapolis.

Ventricular Synchronized Pacemaker

CHARLES FISCH, M.D.
Indianapolis

WITH the advent of the different types of pacemakers and the varying methods of their insertion, the recognition of the type and the characteristics of the pacemaker from the ECG can be quite difficult as is demonstrated by the accompanying figure.

The ECG was obtained from a patient with a *ventriculo-synchronized, demand* pacemaker. This type of pacemaker will discharge (1) spontaneously after a predetermined interval (demand), in this instance after a pause of 0.8 seconds and (2) will also be discharged by ventricular activation which may be either sinus or ventricular in origin (ventricular synchronization).

The first four complexes in the top row (L-3) are initiated by P waves which after a normal P-R, excite the ventricle which in turn triggers the pacemaker resulting in the QRS. The distance between the "spikes" of the pacemaker is only 0.68 seconds, clearly indicating that the pacemaker did not control the heart because the rate of the latter is set at 0.80 seconds. It is also obvious that the behavior of the pacemaker, were it based entirely on the first complexes, could not be differentiated from an atrial synchronized pacemaker, an entirely different type of equipment. Following the fourth QRS there is an A.P.S. which fails to discharge the pacemaker because this particular pacemaker has a built in refractoriness of 0.5 seconds and the distance from the "spike" to the Q of the A.P.C. measures 0.47 seconds. The next four complexes are triggered by the demand period of 0.80 seconds. The last three complexes in the top row are again the result of the P causing excitation of the ventricles which in turn dis-

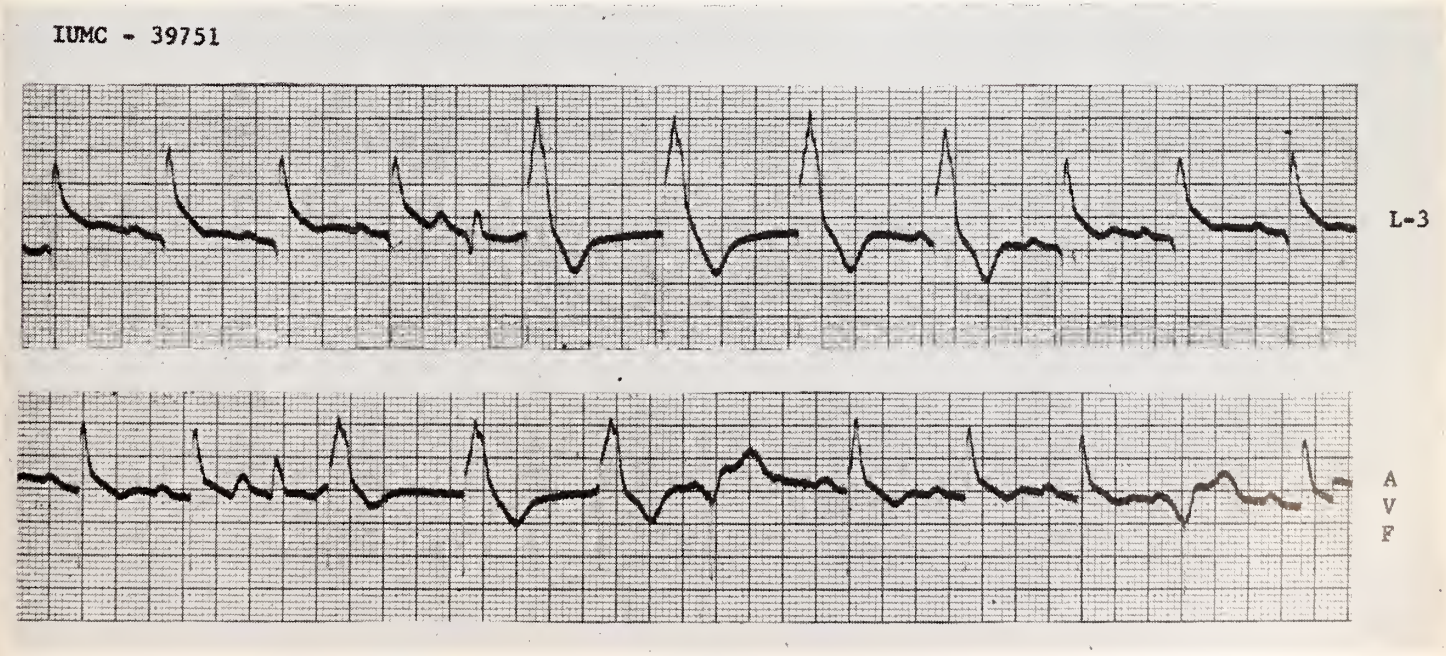


FIGURE 1
VENTRICULO-SYNCHRONIZED, demand pacemaker. For details see text.

charge the pacemaker.

In row two (AVF) similar phenomena are observed except for the fact that the seventh and eleventh QRS complexes are V.P.S. which follow the immediately preceding "spikes" by 0.62 and 0.55 seconds respectively and since this interval exceeds the predetermined refractoriness of the pacemaker (0.50 seconds), these V.P.S. do discharge the pacemaker. ◄

X-RAY CONFERENCE

Presented as a regular feature of *The Journal*, X-ray Conference is a series of short talks on procedure and radiologic diagnosis, edited by Erich K. Lang, M.D.

Stricture of the Membraneous Portion of the Urethra and False Passage

ERICH K. LANG, M.D.
*Shreveport, La.**

A 58-year-old white male patient was admitted to Methodist Hospital, Indianapolis, for assessment of a stricture of the membraneous portion of the urethra. For the past eight years, the patient had been treated in a urologist's office for a known stricture of the membraneous urethra. Dilatations of the stricture had been carried out in two to nine monthly intervals with increasing symptoms during the past two years. Following the last dilatation of the urethral stricture, the patient noted a marked improvement in the urinary stream, however, urination was accompanied with a retropubic pain that had not been one of the manifestations in the past. A ready explanation for this retropubic pain could not be rendered. Absence of temperature elevation or significant discharge mitigated against the diagnosis of a prostatitis.

A retrograde urethrogram was performed (Figure 1), and a false passage posterior to the strictured segment of the membraneous urethra was readily demonstrable. Comparison to preceding urethrograms ascertained that this false passage had developed since the last urethrogram obtained some one year prior to this examination. It was felt that the latest attempt at dilatation resulted in formation of a false passage connecting the bulbous segment of the urethra with the prostatic segment and bypassing the strictured membraneous segment. The stricture itself appeared to be severe, narrowing the lumen to less than 1mm. in cross diameter.

Discussion

The diagnosis of stricture of the male urethra, usually involving the membraneous segment, is best confirmed by retrograde urethrogram. An occlusive bulb device is placed in the fossa navicularis of the male urethra, and the urethra is demonstrated by injecting contrast material of relatively low viscosity. Contrast media of high viscosity, such as Umbradil Viscus U and Thixocon have been advocated in the past, but

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will frequently fail to demonstrate a tight stricture or fistulous tract, and are, therefore, no longer advocated for this procedure. A contrast medium of relatively low viscosity is favored and best demonstrates tight passages and small and narrow fistulous tracts.

Frequently, instrumentation and dilatation of strictured segments result in the formation of false passages. These false passages are likewise readily demonstrated by retrograde ureterograms; projection of the entire male urethra in oblique or lateral projection is obligatory for optimal demonstration of fistulous tracts. ◄

FIGURE 1
THE entire male urethra is demonstrated by a retrograde urethrogram in oblique projection. Note the severe stricture of the membraneous segment of the urethra (arrows) and the false passage posterior to the membraneous segment of the male urethra bypassing this stricture (arrows).

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FRACTURES AND ORTHOPEDIC PROBLEMS

"Fractures and Orthopedic Problems" is a feature which will appear regularly. It will outline conditions involving bones and joints which will be of interest to physicians in general and special types of practice. It will be edited by George F. Rapp, M.D. of Indianapolis. The submission of short illustrated articles to this feature is invited.

Case of the "Unhealing" Fracture

FRANK B. THROOP, M.D.
*Indianapolis**

DAVID was eight years old. It wasn't his birthday, but shortly thereafter that he reluctantly limped into my office accompanied by his parents. His parents explained that David had been limping on his right leg off and on for the past six months or more. Somewhat later I was to find out from neighbors that David had in fact been observed to limp on his right leg for at least two years.

David wasn't concerned about his leg. His mother and father, however, assumed that he had been suffering from repeated sprains of his ankle. Therefore, they had brought him to me to ascertain the cause of his "weak ankle." I discovered that his lower right tibia was bowed slightly anteriorly, was warmer in this area than its mate, and definitely tender to pressure. An x-ray did indeed show a fracture (Figure 1), as I had anticipated. It appeared to be healing already, yet since it was symptomatic, I applied a long leg cast. I told the family it was a fracture in spite of the lack of a specific trauma.

Eight weeks later I removed the cast, quickly turned to deposit the empty cast in the waste container, and heard the patient's father exclaim, with a mixture of disbelief and parental concern, "His leg is crooked." Indeed it was. There had been an increase in the anterior bowing, and in addition, there was now noticeable lateral bowing. The immediate x-ray was even more of a shock (Figure 2). Not only was the angulation present as had been noted clinically, but instead of more evidence of healing reaction on the film, there was actually less.

There followed then, in the ensuing 23 months, a consultation, hospitalization for an extensive diagnostic work-up, two surgical procedures 15 months apart, and many, many plaster casts. It appears at present that bony union, however tenuous or short-lived, has been achieved (Figure 3).

FIGURE 1
ORIGINAL films. The patient was still walking with a limp on the right.

In an attempt to unearth an explanation for this persistent and increasing pseudarthrosis of the tibia, the family history was probed, x-ray skeletal survey reviewed, and many laboratory tests secured. None of the above endeavors indicated a similar involvement in the family, whether it be neurofibroma, localized bone cysts, or any other reason for a pathologic fracture, nor any evidence to support a disorder of metabolism. Biopsy material from multiple sites and tissues about the pseudarthrosis was informative only in a negative sense, in that it was interpreted as being consistent with tissue seen in a pseudarthrosis.

The two-year history of progressive deterioration in the integrity of David's right tibia that lead to gradual increases in anterior and lateral bowing, more constant pain, and ultimately a full blown pseudarthrosis, is suggestive of congenital hypoplastic tibia. The x-rays demonstrated sclerosis of the tibia for a short distance proximally and distally to the fracture. After the first surgery, consisting of bone grafting and plating, the patient showed a deficient response to healing in the distal segment. This is consistent with response to osteosynthesis at-

* From the Department of Orthopedic Surgery, Riley Hospital, Indiana University Medical Center, Indianapolis 46202.

FIGURE 2
LESS healing and more angulation are present. Note sclerosis near fracture line.

tempts in a congenital pseudarthrosis.

The second surgery again consisted of bone grafting, but this time fixation was secured using compression bone plating technic.

Evidence to this date indicates that the case of the "unhealing" fracture is in actuality an example of congenital hypoplasia of the tibia, a close relative of congenital pseudarthrosis of the tibia. The rarity of such a condition agitates and heightens the interest, for the largest series so far collected by one man is only 22. The article by C. P. Van Ness[1], is not only the most comprehensive presentation, but it contains the largest number of cases and is the most current.

I must make it clear, that at this time, neither claim nor credit is intended in the use of the compression bone plating technic as a method of surgical management. Complete and permanent bony union can be claimed only when skeletal maturity is achieved.

FIGURE 3
FIVE months after open reduction and internal fixation with a compression plate and fibular bone graft. Healing is sufficient to permit full weight-bearing in a brace.

REFERENCE

1. Van Ness, C. P.: Congenital Pseudarthrosis of the Leg, *J. Bone and Joint Surg.* 48-A:1467-1483, 1966. ◄

Physicians' Publication List

The AMA Committee on Cutaneous Health and Cosmetics has announced that the 1968 version of its "Physicians' Publication List" is now available.

Aging skin, cosmetics, hair, and soap and cleansing are among the topics mentioned in the six-page brochure, which includes a postage-paid order blank to facilitate handling. One section, devoted entirely to informational pieces for distribution to patients, lists such pamphlets as "Color Her Hair Beautiful" and "Vascular Birthmarks and Your Child."

Single copies of the "Publication List," as well as any of the more than 60 leaflets listed, are provided free of charge. To secure your complimentary copy, please direct your request to the Committee, American Medical Association, 535 N. Dearborn St., Chicago, Ill. 60610.

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The Cancer You View

Edited by
Edwin E. Pontius, M.D.
Indianapolis

TED L. GRAYSON, M.D.
Indianapolis

A 57-year-old woman had a four-month history of increasing weakness with easy fatigue with lower abdominal discomfort. During the past two weeks the abdominal pain had been cramping in nature.

The patient saw her family physician two months ago when, after her hemoglobin was found to be 8.0 gms., she was started on "iron." When hospitalized for evaluation, a barium enema was performed. One spot-film is shown in the illustration.

What is your diagnosis?

Do you think the patient's anemia is related to the colon lesion?

What further "work-up" and therapy would you suggest?

What is your opinion as to the patient's prognosis?

For diagnosis and discussion, see page 698.

Supported in part by a grant from the American Cancer Society, Indiana Division, Inc.

Hospital-Based Group

It is predicted that doctors will practice in groups based in hospitals in which they will provide services to families both as inpatients and outpatients. These groups will include specially trained nurses, social workers and physicians to provide the minimal medical services which families demand, while the specialists, including the family physician-practitioner, provide the more complex diagnostic and therapeutic services.

With the declining number of general practitioners, it is felt that patients may learn gradually to accept from paramedical personnel diagnostic and therapeutic procedures previously administered only by physicians. This bureaucratic organization might well provide more personal care for the patient; more personal care might also be facilitated by mechanization in laboratory technics, diagnostic examinations, record-keeping, etc. With such an organization there also would be less care in the hospital by these hospital-based groups; there would be more home care but fewer home calls by the physician.—*The Internist*, Vol. VIII, No. 3, March, 1967.

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Vistaril calms anxiety and agitation quickly—usually begins to work in 15-30 minutes. And, in more than ten years of clinical use, after more than a billion doses to date, there have been no reported instances of dependency on hydroxyzine.

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Hydroxyzine, when administered to the pregnant mouse, rat, and rabbit induced fetal abnormalities in the rat at doses substantially above the human therapeutic range. Clinical data in human beings are inadequate. Until adequate data are available to establish safety in early pregnancy, hydroxyzine is contraindicated during this period.

Precautions: Hydroxyzine may potentiate the action of central nervous system depressants such as narcotics and barbiturates. In conjunctive use, dosage for these drugs should be decreased as much as 50%. Because drowsiness may occur, patients should be cautioned against driving a car or operating dangerous machinery. The usual precautions for intramuscular injection should be followed; soft-tissue reactions have rarely been reported when proper technique has been used. Hydroxyzine parenteral solution for intramuscular use should be injected well within the body of a relatively large muscle. In adults, the preferred sites are the upper outer quadrant of the buttock (i.e., gluteus maximus), or the mid-lateral thigh. In children, preferably the mid-lateral muscle of the thigh. In infants and small children the upper outer quadrant of the gluteal region should only be used when necessary, as in burn patients, in order to minimize the possibility of damage to the sciatic nerve. The deltoid area should be used only if well developed, such as in certain adults and older children, and only with caution to avoid radial nerve injury. Injections should not be made in the lower and middle thirds of the upper arm. Aspiration should be done to help avoid intravascular injection. On reported intravenous injection a few instances of digital gangrene have occurred distal to the injection site, considered to be due to inadvertent intra-arterial injection or possibly periarterial extravasation. Therefore, particular caution (aspiration and site injection) should be observed to insure injection only into intact veins; avoid either intra-arterial injection or extravasation. Intravenous administration should be accomplished slowly, no faster than 25 mg. per minute, and not to exceed 100 mg. in any single dose. In order to avoid possible adverse effects it is recommended that hydroxyzine parenteral solution be diluted to at least 50 cc. with sterile normal saline and administered over a period of four minutes or more, preferably into the tubing of a running intravenous infusion.

The intravenous administration of this drug is not recommended for children under 12 years of age.

Adverse Reactions: Drowsiness may occur; if so, it is usually transitory and may disappear in a few days of continued therapy or upon dosage reduction. Dryness of the mouth may occur with higher doses. Involuntary motor activity, including rare instances of tremor and convulsions, has been reported, usually with higher than recommended dosage.

When this product is given intravenously undiluted, minimal amounts of intravascular hemolysis occur at the site of injection. Giving the maximum recommended intravenous dose (100 mg.) to adults results in immediate transient hemolysis with the liberation of a total of 2-3 grams of hemoglobin, which, in some individuals, can cause small amounts of hemoglobinuria. This compares with the normal red cell destruction from which approximately 8 Gm. of hemoglobin are liberated every 24 hours. If the hydroxyzine is diluted with 50 cc. of normal saline and given during a period of four minutes or more, this phenomenon does not occur.

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More detailed professional information available on request.

References: 1. Greenhouse, H. R.: Medication and the Dependent Personality, Symposium of Non-Narcotic Drug Dependency and Addiction, The Amer. Psychiat. Assn., N.Y. County Dist. Branch, New York, N.Y., March 10, 1966.

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Side effects: Infrequent and minor side effects include nausea, metallic taste and furry tongue. Gastrointestinal disturbances, flushing and headache sometimes occur, especially with concomitant ingestion of alcohol. The taste of alcoholic beverages may be altered. Other effects, all reported in an incidence of less than 1 per cent, are diarrhea, dizziness, vaginal dryness and burning, dry mouth, rash, urticaria, gastritis, drowsiness, insomnia, pruritus, sore tongue, darkened urine, anorexia, vomiting, epigastric distress, dysuria, depression, vertigo, incoordination, ataxia, abdominal cramping, constipation, stomatitis, numbness or paresthesia of an extremity, joint pains, confusion, irritability, weakness, cystitis, pelvic pressure, dyspareunia, fever, polyuria, incontinence, decreased libido, nasal congestion, proctitis and pyuria. Elimination of trichomonads may aggravate candidiasis.

Dosage and Administration: In women: one 250-mg. oral tablet three times daily for ten days. A vaginal insert of 500 mg. is available for local therapy when desired. When used, one vaginal insert should be placed high in the vaginal vault each day for ten days; concurrently two oral tablets should be taken daily.

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SOURCE: DUNCAN, G.G.: SCIENCE NEWS LETTER, 83:403 (JUNE 29) 1963.

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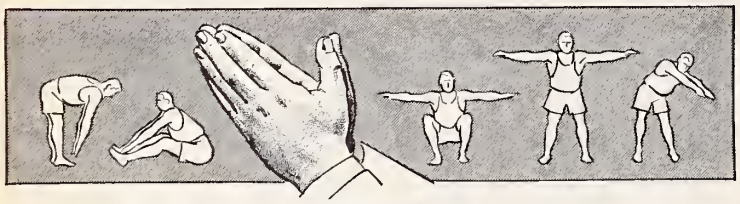
SOURCE: JAMA 186:65 (OCT. 5) 1963.



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*SOURCE: ARCHIVES OF GENERAL PSYCHIATRY 8:26 (JUNE 1963).

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References: 1. Hoon, J. R.: Arch. Surg. *93*:467 (Sept.) 1966.
2. Danhof, I. E., Personal communication.

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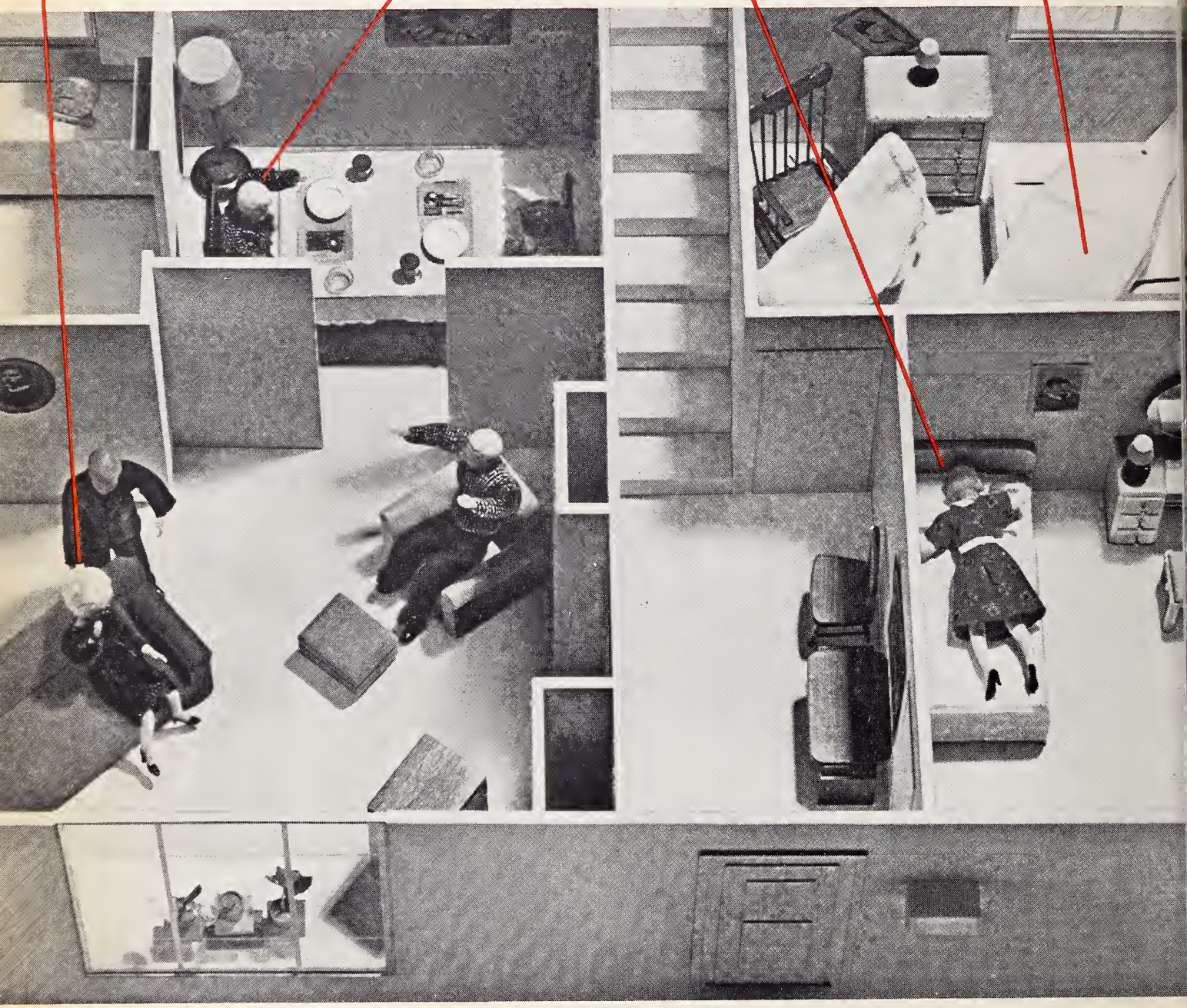

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Comprehensive Health Planning Seminar Goals and Objectives

G. O. LARSON, M.D.
President, Indiana State Medical Association

WE are here today to discuss some of the problems associated with health planning in our state. As you know, the Indiana State Medical Association has been active in this field for many years, and various county medical societies have initiated and participated in local and regional health planning. We physicians have worked closely with state, local and federal health needs.

We have participated with the state health department in trying intelligently to plan in the administration of the Hill-Burton Program, vaccination programs and many other state health needs.

Over the years, the need for prepaid medical care has been appreciated by many physicians in this state. This led to the formation of the Blue Shield Plan, to provide comprehensive medical and surgical coverage on a first-dollar basis for about one-half of the people in this state. In addition, the Plan has had a beneficial effect on the quality of private insurance written in this state.

As some of you may remember, our Council has been studying PL 89-749 for the past several months. Our feeling is that health planning could best be done voluntarily at the local level with state coordination. Since much has transpired and though health planning is now mandatory under PL 89-749, we still feel it can best be initiated and developed at the local level and the law seems to agree with this. Such planning must be conceived and worked out at the community level by informed and dedicated local leaders. Physicians must be informed and, we hope, will play a major role in the development and operation of local planning boards or councils.

Since the need for factual health planning was foreseen, the Council established a special committee to investigate, study and plan for the implementation of this law. The Council is extremely interested in the membership being fully aware of this new program and its implications and the importance of physicians assuming an active leadership role. We desire to obtain facts — all the facts — as they relate to health care. As you know, much misinformation is rampant, so it becomes increasingly important to try to obtain accurate and critical information to inform the profession as well as the public in true perspective.

This is what we plan to do at this conference. We hope to enable you to obtain an introduction to planning processes and to enable you to better understand Public Law 89-749.

The purpose of this seminar then is to inform doctors of the intent of PL 89-749 as it pertains to our health needs. In this manner, it is our belief we can best serve our communities and the state in health planning.

We have chosen speakers who are well informed and best able to present this information to you. Many of you, I know, have questions and perhaps apprehensions about this law, but if one goes back

in history, health planning has been a significant part of our past efforts to improve the quality of medical care. The Flexner Report, the accreditation of hospitals, the establishment of the National Board of Medical Examinations, the establishment of the specialty boards and their certification — to name a few — have been done, not at the demands of government or the public, but because we as physicians believed these actions were necessary to insure better care to the public.

We have now moved into other areas of concern. It is no longer enough to provide medical care of the highest quality. Associated health services, as such, which includes health facilities planning, environmental health improvement, preventative medicine and health education must also be provided.

It is not enough for us to maintain the fundamentally important doctor-patient relationship, but we must concern ourselves with the doctor-society relationship. Although perhaps less challenging, it is equally important.

If personal medical care as we have known it is to survive, then we must lead our communities in comprehensive health planning. The economics of such health planning is most important, but unless we are informed and willing to assume our role of informed leadership, then I cannot see how we can effectively participate in the economic development of health care planning.

I hope that during this two-day session, each one of us will look at what we as individuals can do in planning for health out of our own offices. From this point of inquiry, we hope to move on to determine what health planning actions and activities should be undertaken by county medical societies, hospital medical staffs, and medical specialty groups — all in cooperation with voluntary and public organizations and agencies.

RECOMMENDATIONS FOR COMPREHENSIVE HEALTH PLANNING AS PRESENTED AT THE COMPREHENSIVE HEALTH PLANNING SEMINAR, MARCH 31, 1968.

1. Each component medical society should take the initiative in forming local Health Planning Councils.

2. Such local Health Planning Councils, which are representative of the community, should take immediate steps to inventory and assess their total community environmental and personal health needs.

3. On the basis of such determinations, specific health planning goals should be established as steps to be taken to develop specific programs to alleviate or correct existing problems or to anticipate future ones.

4. At suitable intervals, such programs should be evaluated to determine the effectiveness of the programs which have been developed.

5. The comprehensive health planning activities should be revised at periodic intervals in order to establish new goals and programs when necessary.

6. Physician representation on the local planning council should be no less than 25%.

7. Each county society should establish a special committee on health planning.

8. Each component society should inform the ISMA of the names of its committee members and should send copies of the minutes of all planning meetings to the ISMA.

9. Each local planning council should report its assessment of needs and its preliminary goals to the ISMA.

10. Each county medical society should officially invite its council to meet with the society.

11. County society officers should explain to their members the meaning of "The Indiana Medical Political Action Committee" (IMPAC) and "The American Medical Political Action Committee" (AMPAC), their purpose, their function and their valuable work and to what use their voluntary contribution is made in the effort to elect congressmen dedicated to the constitutional form of government.

The Kirkpatrick Workshop

THE J. Walter Kirkpatrick and Arrena I. Kirkpatrick Memorial Fund for Gerontology was established in 1955 by Dr. Nila Covalt. It is named for her parents whose lifetime interests and many public services inspired the creation of the Fund for the study and alleviation of the problems of aging.

The Fund, with the co-sponsorship of Ball State Teachers College, now Ball State University, the Muncie Academy of Medicine, the Delaware-Blackford County Medical Society, and the Indiana Commission of Aging and the Aged, has conducted a workshop annually since 1955. Leadership has come from Dr. Covalt, from President John R. Emens and the faculty of the university, from Dr. Lall Montgomery and Dr. Wilma Donahue, Chairman of the Institute of Human Relations of the University of Michigan.

Community support comes from a large segment of public spirited citizens of Muncie, from Altrusa and Soroptimist and members of the Indiana Federation of Clubs. The Commission on Aging of the Indiana State Medical Association and all its members have contributed freely of their time and interest.

The workshop this year was the fourteenth. It was conducted with the theme: "Living and Health Arrangements: Their Impact on Independency." The daytime portion of

the program was devoted to lectures, a symposium and six workshops. The day was concluded by a banquet and an address by Dr. Dwight Wilbur, president-elect of the AMA.

Dr. Wilbur's subject — "Not How Old, But How Healthy and Useful?"—was appropriate to the occasion and to the workshop theme.

Dr. Wilbur's talk, if it could be reduced to one sentence, would sound like this — Too many people retire too soon for their own good.

He stated that the AMA belief was that decision on retirement should be made on the same conditions as employment is made—the need for the job and the ability of the person to do the job. He pointed out that some people are old at 40 and others are still tigers at 80. Compulsive retirement at age 65 is not the answer.

Dr. Wilbur emphasized that it is enthusiasm which is the key to happiness and also to good health. "There are no organic diseases which are peculiar to old age. The most common condition of old people is not organic at all, it is plain old-fashioned depression brought on by idleness."

He called for a continuing regimen of moderate exercise, reasonable diet and sufficient rest throughout life for good health.

There are, of course, many problems of old age, but the large problem is the one of physical and mental health. Dr. Wilbur's wise counsel should furnish a sound foundation for cure of the ills of old age.

Editorial Notes . . .

Locations with unpleasant living conditions are sometimes referred to as contributing to longevity—you don't live longer, it just seems longer. Not so with Hawaii—it not only maintains an excellent reputation for comfortable living but also boasts a better death rate that the continental portion of the U. S. This is particularly true of the nonwhite segment which amounts to 70% of the population in the islands. The 30% which is white has an overall mortality which is higher than it is for whites on the mainland. Hawaii has a low infant mortality rate, and very few maternal deaths.

Births in the U.S. continued to decline in 1966, to a rate per 1,000 of 18.5. This is an extension of a decline which originated in 1960 and by 1966 had constituted a national decrease of birth rate amounting to 14.8%. Indiana in the same period had a decrease of 16.1%. The District of Columbia, with 46.5% and Nevada with 19.1% were the only states to report an increase since 1960.

Employees in the atomic energy field sustained fewer work injuries and lost fewer workdays than workers in manufacturing on the average, it is reported by the Bureau of Labor Statistics. The figures cover privately owned establishments for 1965 and part of 1966. The difference is considerable with frequency rates of 4.3 and 4.7 for atomic work as contrasted to rates of 12.8 and 13.0 for all other manufacturing.

The 1967 cost of patient care for one day in the country's community hospitals was $58.06. This is an increase of 15.4% over 1966. Payroll expenses were up by 17.4%, an increase which more than accounted for the overall advance. Federal minimum wage and overtime pay laws contributed to the payroll growth, together with higher salaries paid nurses and other paramedical personnel. Total admissions were up by almost one percent—admissions of those over 65 increased in number by 5.1%.

Researchers with the Upjohn Company have discovered a laboratory colony of purebred beagle dogs who have an exceptionally high incidence of thyroiditis. Pedigrees of beagles purchased from outside, and who showed numerous instances of thyroiditis though less than the inside colony, indicated a common ancestry of both groups. Study of the dogs may shed light on the condition which is possibly an inherited tendency in man, and which may be on an autoimmune basis.

AAALAC (The American Association for Accreditation of Laboratory Animal Care) is a new voluntary organization formed by many medical and scientific associations for the purpose of insuring high standards for the care of animals in research laboratories. A 1966 federal law regulates animal dealers, and applies in lesser degree to laboratory subjects. AAALAC will set optimal standards for laboratories and will inspect and evaluate those who apply for accreditation. Additional legislation is pending in Congress, but the voluntary program under AAALAC will either supplement or make unnecessary any official control.

Cornell Medical Center reports a variant of the Cornell Medical Index which is adapted to computerization. The patient circles "Yes" or "No" answers to each of 150 medical history questions. When the questionnaire is subjected to computer analysis, one or more of 100 common medical diagnoses is indicated as probable. Called the Medical Data Screen, the method has been reported as having produced acceptable results when compared with diagnostic work done by physicians by traditional methods. Comment on the process includes the admonition that the physician must determine why the patient claimed his particular set of symptoms before any validity may be assigned. ◄

President's Page

Dear Doctor Larson:

Just last month, in Washington, D.C., AMPAC sponsored a two-day program for over 600 participants from every state in the Union.

I came away from the meeting impressed—impressed with the enthusiasm, dedication and sophistication of those who were there.

Also, I was impressed with the need to reinforce my personal visits with state presidents with a brief note reaffirming my dedication to state PAC-AMPAC membership and participation.

And so I am writing to ask that you use whatever resources are available through your good offices to bring this same important message to your colleagues.

The need for individual participation in practical bipartisan activity is now more vital than ever. PAC programs and PAC membership offer the physician the chance to discharge this responsibility and to be a better citizen in his own community.

This year presents unusual challenges for which we must be prepared. Your help in urging PAC support will be a substantial contribution to this preparation.

Sincerely,
Milford O. Rouse, M.D.
President, American Medical Association

I requested Dr. Don Wood, chairman of IMPAC, to write this guest editorial.

IMPAC
INDIANA MEDICAL POLITICAL ACTION COMMITTEE

The medical profession is now more deeply involved in politics than ever before. Their influence, counsel, planning and cooperation are necessary ingredients today, not only in health care principally, but in all community and national problems. To quote Mr. Leo C. Beebe of Ford Motor Company of Canada "The day of just sitting and watching the ball game, eating peanuts and hot dogs is over. You're going to get hit in the head with the ball!"

The PAC movement of political action in the medical profession is here to stay. It is recognized by both political parties as an effective way for medicine to express itself in unison. Many letters from congressmen of both Democratic and Republican parties are on file in AMPAC Headquarters to substantiate this statement.

In Indiana many congressmen will likewise make the statement—"The doctors were a prime force in my election or re-election."

There is a need for all members of our profession to support this activity. A few have chosen to be strictly individualistic—everyone should support the candidate of his choice as well as support the party of his choice. He should also support his professional organization because a total voice is a stronger voice.

In this election year IMPAC is asking each doctor and his wife to become members of both IMPAC and AMPAC. Join together and help in the common cause of good government.

Join IMPAC)	The laboring force all belong to COPE,
Join the Century Club)	or be a bellyacher with a loud mouth and
Join AMPAC)	expect everyone else to do it for you.

Be a full fledged member of your profession. Open your pocketbook and not just your little black bag.

G. O. Larson M.D.

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DORSEY Season

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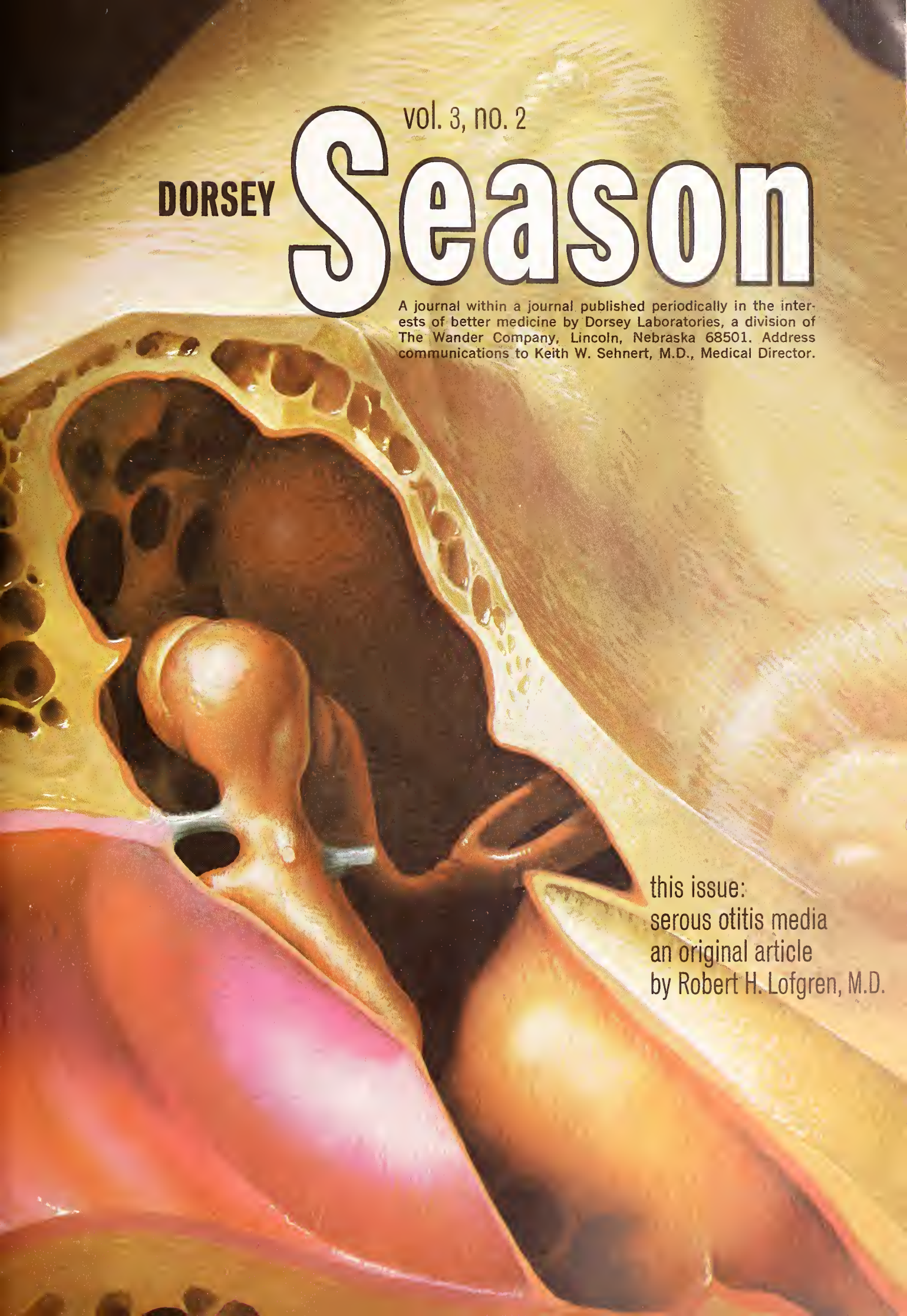
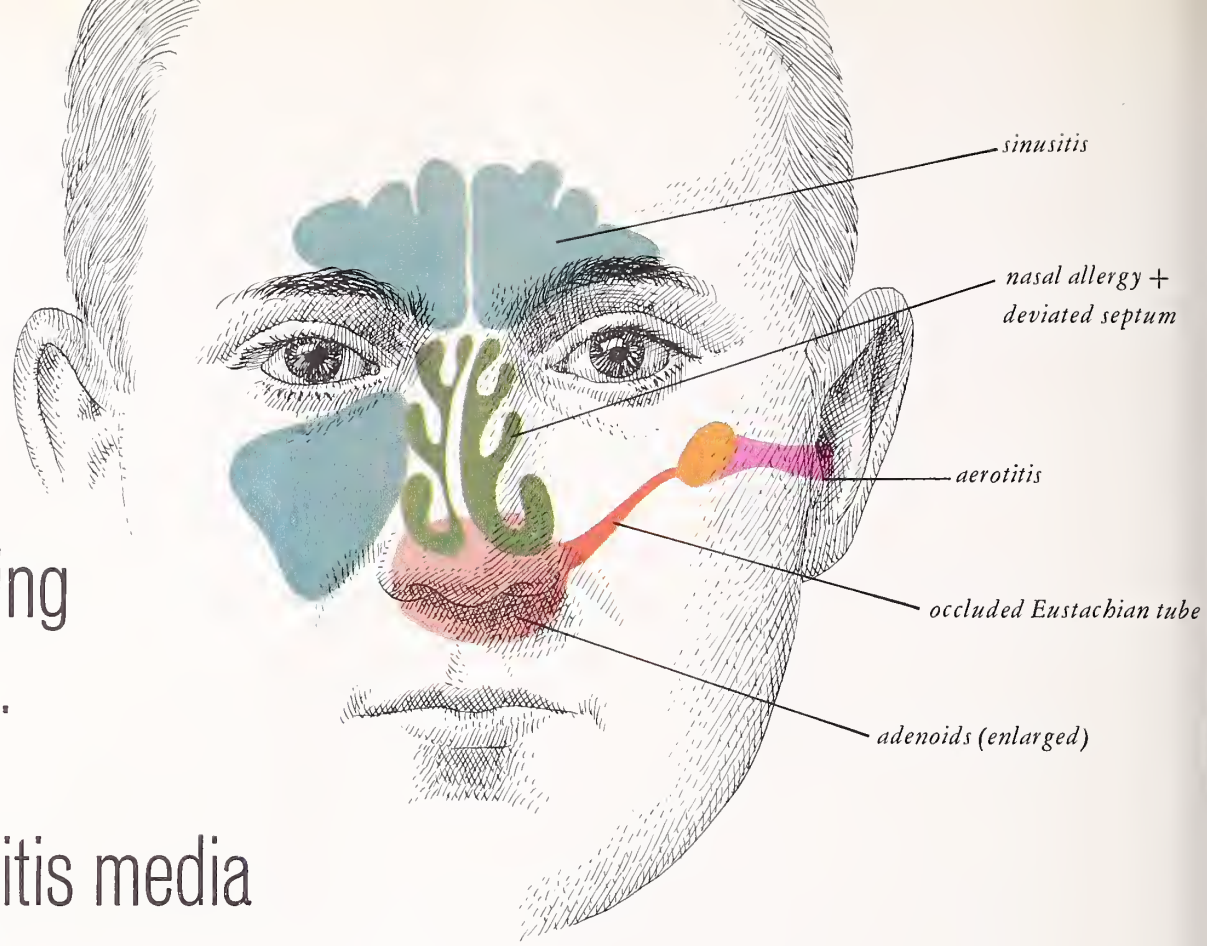


this issue:
serous otitis media
an original article
by Robert H. Lofgren, M.D.



the complaining earache... key to serous otitis media

Robert H. Lofgren, M.D.
Associate Surgeon, Massachusetts Eye and Ear Infirmary, Boston, Massachusetts

Serous otitis media is probably the most common ear problem in children, especially in the wintertime. Diagnosis is usually easy in adults, but may be quite difficult in children, especially the very young child where one has to depend almost entirely on the physical findings.

The symptoms of serous otitis are a fullness in the ear, a mild hearing loss and mild earache. The earache can best be described as a "complaining earache" instead of a "screaming earache" as found in purulent otitis media. A young child may be irritable and pull at the ear. In milder cases, and as the ear recovers, gurgling and popping noises can be heard in the ear.

On examination one may see a yellow tympanic membrane and if a fluid level is present the diagnosis becomes easy. However, the eardrum may be dull gray, or slightly pink, or even perfectly normal. Pneumomassage using a Siegle otoscope or a closed-head electric otoscope must be done on both ears, otherwise the diagnosis will be frequently missed. Attempted movement of the drum with the pneumatic otoscope produces either a sluggish motion of the drum or no motion at all instead of the easily movable normal drum. The Rinne test is negative and there is a 15-20 decibel conductive hearing loss. The bone conduction may be better than normal and an air-bone gap may exist even with the air conduction within normal limits. Occasionally one finds a false nerve deafness on the audiogram when thick glue-like fluid causes immobility of both the oval and round window. Both conditions return to normal when the fluid is removed, but they make the interpretation of screening audiograms very difficult.

There is no single cause for serous otitis. One factor always present is blockage of the eustachian tube, but this alone is not enough to produce fluid. There must also be an inflammatory reaction. Blockage of the eustachian tube may be caused by many conditions. In children the most common cause is enlarged adenoids. In the summer the next most common cause is allergy. Upper respiratory infections or influenza are common causes in the winter. Nasal allergy, acute and chronic sinusitis, nasal septal deformity and cleft palate can all cause eustachian tube obstruction. Some children may have a congenitally small eustachian tube, but fortunately they usually "grow out of the problem."

the first sign of a nasopharyngeal tumor is often a serous otitis. One must always rule this out in any adult who later in life develops repeated or persisting serous otitis. Causes sometimes overlooked are nasogastric tubes after surgery, simple obesity and cardiorenal disease, which may produce congestion in the mucosal lining of the eustachian tube. In recent years we have been seeing a new cause—acute otitis media, where the patient is adequately treated with antibiotics but where drainage has not been

established either through the eardrum or down the eustachian tube. A sterile exudate is left in the middle ear.

The inflammatory response may be caused by a marked negative pressure as in air otitis from flying, or it may be from a mild bacterial or viral infection in the middle ear. Serous fluid is a good culture medium and will frequently go on to purulent otitis media, especially if the original blockage was caused by an infectious process such as acute rhinitis or adenoiditis. When the infection heals there may be scarring in the middle ear mucosa. Mucous glands develop in this tissue and pour out a thick mucoid material. This ear usually looks normal until a pneumatic otoscope is used. The objectives in treating serous otitis are to remove the obstructing agent and to provide drainage from the middle ear. Often this can be accomplished by decongestants and nose drops. If large obstructing adenoids are present they should be removed. Sinusitis should be treated with oral decongestants or nose drops, plus antibiotics where indicated. Nasopharyngeal tumors should be treated. Allergies should be treated with antihistamines and, where indicated, by desensitization.

If the fluid does not clear with medical treatment within a week or two, a myringotomy should be done. If there is a question of active infection or if the fluid looks purulent, as is seen at the conclusion of acute otitis, cultures are taken. On adults this can be done in the office without anesthesia. It is no more painful than an intravenous needle for a blood test. A good safe topical anesthetic has a tremendous psychological value to the patient. Children under the age of 1 require no anesthesia. Between the ages of 1 and 3 anesthesia is not absolutely essential although a general anesthetic may be used to avoid the child's possible mistrust at follow-up examinations. I usually do the myringotomy at the same time as the adenoidectomy if the adenoids are enlarged. Once drainage has been established with decongestants or by myringotomy, positive pressure inflation of the middle ear is invaluable in forcing out the serous fluid and keeping it from reforming. The patient can do this himself by performing the Valsalva maneuver. This should be done several times a day, by taking a deep breath, holding the nose and blowing hard against the closed lips for a second or two.

In resistant cases where the fluid reforms as soon as the myringotomy heals, small polyethylene tubes are inserted through the myringotomy site. Insertion of the tubes, even in adults, usually requires an anesthetic. Good anesthesia can be obtained by infiltrating the canal wall with a local anesthetic, using a #27 needle. Once inserted the patient has no sensation of the tubes' presence. Be careful to caution the patient or parents not to allow any water to get into the ear canal while a myringotomy is open or a tube is in place. Water can be kept out by a pledget of lamb's wool in the ear canal or a cotton pledget thickly coated on the outside with petroleum jelly. I check these patients a week after a myringotomy to be sure it is healed and at two month intervals until the tubes have fallen out, usually within three to six months after insertion.

The mucoid type of fluid is so thick and tenacious that it is appropriately called a glue ear. It is aspirated only with difficulty through the eardrum, and occasionally must be removed through a tympanotomy. This thick, glue-like fluid is prone to recur, as the myringotomy usually heals long before the mucous membrane has returned to normal. Repeated myringotomies, as many as ten or twenty, were formerly required for this condition. Now polyethylene tubes are inserted initially when this thick, glue-like material is found. At times a subacute mastoiditis may accompany the serous otitis, which will necessitate a simple mastoidectomy before the condition can be eradicated. Usually the thin serous fluid readily responds to decongestants or to a myringotomy and removal of the eustachian tube obstruction. Occasionally, however, even serous fluid will repeatedly reform. For this, resection of the tympanic plexus of nerves which lies on the promontory of the middle ear has been carried out, as the tympanic branch of the glossopharyngeal nerve is the secretomotor nerve to the ear.

Failure to diagnose serous otitis is the most common cause of the recurrent, almost continuous otitis me-

Otoscopic Views

Normal

Acute Serous

Acute Purulent

Chronic Serous

dia seen in young children. In these cases a myringotomy will frequently provide a long-term cure without adenoidectomy or any other surgery. Failure to do this may allow the condition to go on to acute or subacute mastoiditis. Adhesive otitis media with scar tissue binding down the ossicles or tympanosclerosis may also result with permanent impairment of hearing. The prognosis for hearing with adhesive otitis or tympanosclerosis is usually poor. If the adhesions are removed, they reform, and the same is frequently true of tympanosclerosis even after a tympanoplasty. For many of these people a hearing aid is the only solution. The constant negative pressure in long standing serous otitis media may draw in either Schrapnell's membrane or the posterior superior portion of the eardrum forming a pocket to cause a chronic otitis media with cholesteatoma, which may not become apparent until twenty or thirty years later.

The non-medical complications of improper diagnosis or treatment may be even more serious. The irritable child, the frequent bouts of acute purulent otitis media with pain and fever, the expense of antibiotics and doctors, and the time lost from school or work affect the entire family.

In summary, serous otitis has many causes. There is a blocking of the eustachian tube and an inflammatory reaction in the middle ear mucosa, the latter usually caused by a mild infection. The treatment is to provide immediate drainage by decongestants and where necessary, by a myringotomy. The obstructing agent must be removed by surgery if it is adenoid or by oral decongestants, and antihistamines or nasal spray if it is an upper respiratory infection or allergy. Occasionally resistant cases require plastic tubes placed through the eardrum or other more radical surgery. Failure to treat properly leads to hearing loss which may be permanent, repeated acute otitis media or possibly even chronic otitis media with cholesteatoma.

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"The Orange Medicine"

You know it as Triaminic Syrup, but mothers of kids with colds and allergies know it as the orange-colored, good-tasting medicine that makes life a lot more livable at either end of the teaspoon. Triaminic Syrup contains not one, but two antihistamines, plus an effective oral nasal decongestant. This balanced formulation has promptly and effectively relieved nasal congestion for so many.

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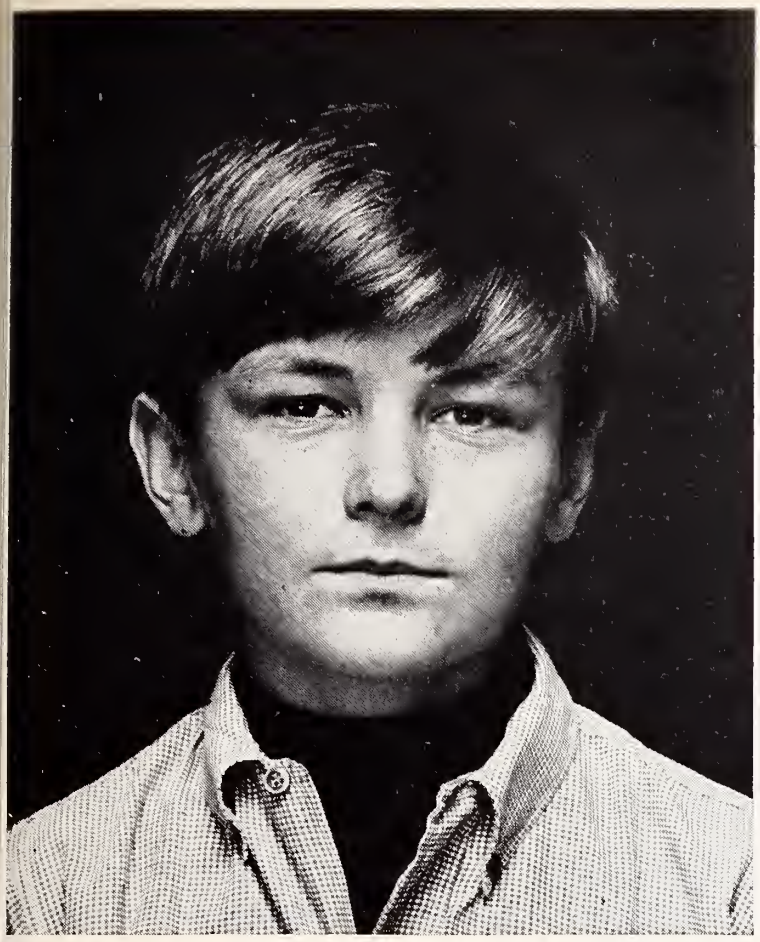
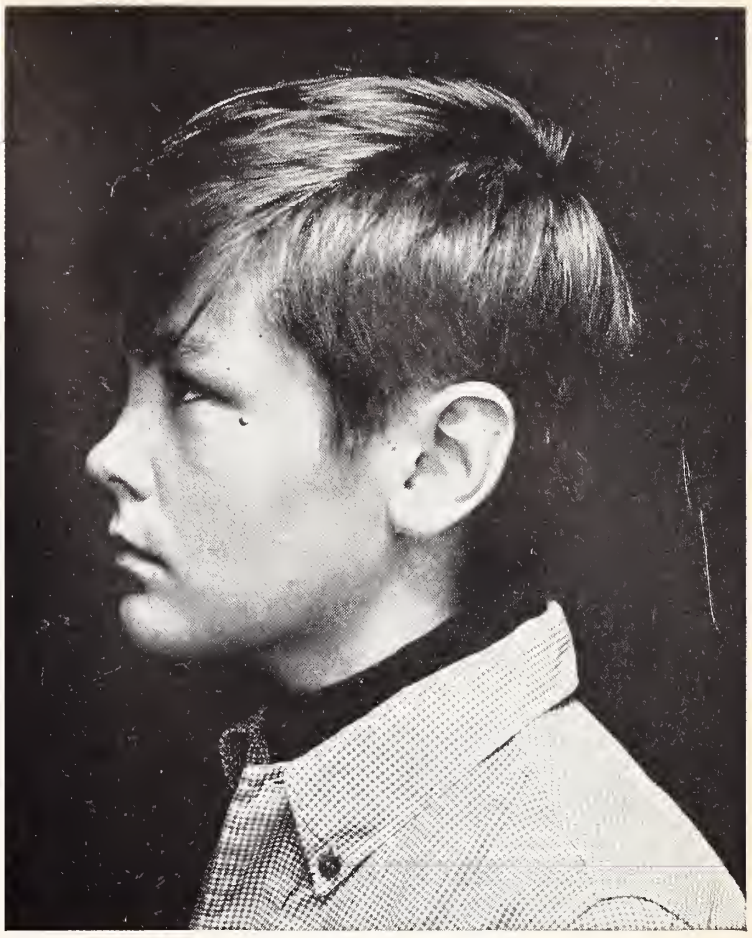
Each teaspoonful (5 ml.) contains: phenylpropanolamine hydrochloride 12.5 mg.; pheniramine maleate 6.25 mg.; pyrilamine maleate 6.25 mg. Side effects: Drowsiness, blurred vision, cardiac palpitations, flushing, dizziness, nervousness or gastrointestinal upsets. Precautions: The possibility of drowsiness should be considered by patients engaged in mechanical operations requiring alertness. Use with caution in patients with hypertension, heart disease, diabetes or thyrotoxicosis. Dosage: Children 1-6, ½ tsp.; Children 6-12, 1 tsp.; Adults, 2 tsp. Administer every 4 hours. Supplied: Bottles of 4 fl. oz., pints.

(Advertisement)





How to turn a 14-year-old boy into a hardened criminal.

Just forget your keys in your car one day.

Tempt some fourteen-year-old boy into going for a joyride.

Oh, he could be a good kid — just weak.

And taking your car might be the first time he's ever broken the law.

But the minute he hops behind that wheel and turns the key, his life may be ruined.

He'll drive around for a few hours, endangering the life of every man, woman and child who crosses his path.

He might be caught the very first time he takes a car. Or if he's not caught by the police he'll leave your car somewhere and decide to do it again, and again, until the day he does get caught.

Teen-agers steal more than 1,000 cars every day.

The U. S. Department of Justice and your state and local law-enforcement agencies are concerned.

They know that taking a car for a joyride is just the first step.

Our prisons are filled with men who started out this way. They went on to become thieves, muggers, and even killers.

You can do something to help solve this terrible problem.

Whenever you get out of your car, even for a second, take your keys. Lock your car.

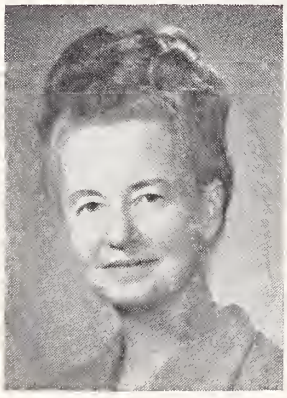
Every time you do this you may keep a good boy from going bad.

Don't help a good boy go bad. Lock your car. Take your keys.

The Woman's Auxiliary

REPORTS TO ISMA

A Spring Workshop on Program Planning is scheduled for Wednesday, May 15, at the ISMA Building in Indianapolis. All county officers, chairmen and auxiliary members are urged to attend this informative session. Each state chairman will have materials, ideas and helpful suggestions for incorporating her department in the work of the county auxiliary. Registration will begin at 9 a.m. (Indianapolis time). The sessions will run from 9:30 to adjournment at 2:30. The noon break will be a buffet luncheon served at the ISMA Building.



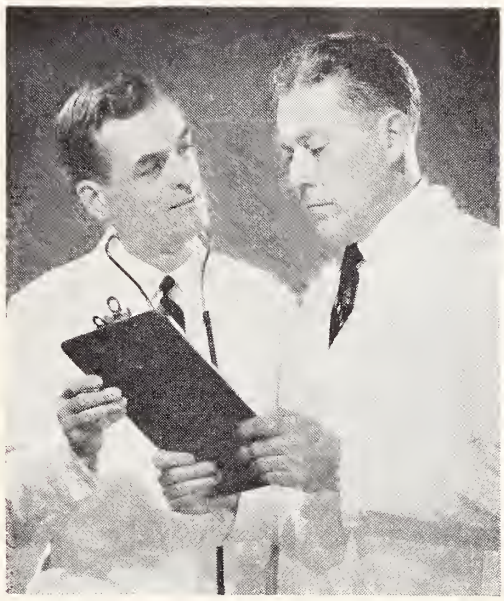
A day of orientation in the spring should prove valuable to county officers since many of them assume their new responsibilities in May. Program planning sessions at the county level can be helped by the information gained at the workshop. It is a time for questions and answers on all phases of auxiliary interests. Members in attendance can also give valuable suggestions on a more effective state program book. Mrs. David Goldsmith of Marion, state program chairman, is compiling the new book for publication in the summer.

The new officers of the state auxiliary were installed by Ethel Gastineau at the House of Delegates meeting in April. We do well to remember that although the personnel may change, the work of the organization continues in an unbroken flow of endeavor. I speak for all of the 1968-1969 officers and chairmen when I say that we appreciate our heritage of auxiliary accomplishment and we look forward to continued cooperation between the auxiliary and the physicians of the Indiana State Medical Association. We renew our pledge to organized medicine to "support its activities, protect its reputation, and ever sustain its high ideals."

Will you help our first activity of the 1968-1969 year by encouraging your wife to come to the workshop on May 15? We are looking for her.

Betty Kephart

Is Your List of Unpaid Accounts TOO LONG?



If that number of delinquent accounts is growing as if it had received a vitamin shot, you need help. It's time to call in a specialist and that's where we come in!

Our experienced staff members are familiar with the professional needs and ethics of the health professions. We have had many years experience in collecting past due accounts while preserving the doctor-patient relationship.

If you've got too many names on your list,
it's time to give us a call!

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Contact your local ASSOCIATED CREDIT BUREAU OF INDIANA *member*

Is There A Challenge?*

EDWARD R. ANNIS, M.D.
Miami, Florida**

I have long been educated in the belief that the best way to prognosticate the future is in the light of the past, and I would like to share with you a little of the brief history of the immediate past. In the light of some of the things you've heard today, in the light of much of what we have read in propaganda speeches and pieces for the Department of Health, Education and Welfare of this administration, (namely *Medical World News* which is the number one propaganda mouthpiece), and a number of others deliberately designed to mislead the American physician, we are informed that our private thinking is in error and that a great majority of the profession goes along with the type of guided thinking and guided conclusion which deliberately has emanated from Washington.

I recall my first trip to Indiana, talking about some of our common problems, was to French Lick. I was invited there to talk at the time you were promoting I-HOPE, recognizing the importance of doctor's participation in the affairs of government. This preceded by two years, more or less, the establishment of AMPAC, wherein the AMA encouraged physicians to become active in the political affairs of the nation that belonged, or should belong, to all of the people of this nation. And I recall that at that time too, we were telling the basic story of what was then proposed in the common good, what was then proposed as being demanded by the people, when in fact it was demanded by those of a labor socialist philosophy, determined then as they are today, including the present Secretary of Health, Education and Welfare, that the medical profession will be subjugated, and regulated, and controlled from Washington.

A Master Plan?

The question came up today, "Is there a master plan?" Well there may be some who don't believe there is a master plan. I am persuaded to the belief that a great number of very able people in this country, including undoubtedly a couple of those who spoke to us today, working for their government and through their government are honestly motivated to the aims, the objectives, the labels purportedly behind these programs. I don't indict those who work for the Department of Health, Education and Welfare. I don't indict those who are working for our government in many programs across this nation, whether it be in the voluntary health programs that we were talking about today, in generating manpower in some of our OEO programs, in some of the Regional Medical Programs, because I know among these I have met some truly dedicated people, honestly motivated to upgrade the kinds and quality and distribution of quality medical practice.

But I do indict those above them whose record is printed, including the secretary of HEW, who has long been on record, both by speeches and in writing, that the ultimate for the distribution of medical care is one controlled by the likes of him in Washington, where the physicians will work under circumstances dictated by someone else, where physicians will not compete one with another but rather will be all considered in the same mold, will be paid a resident salary to provide medical care as determined by him and others, who think as he does, in Washington.

A Giant Dole

I recall when we opposed some of the legislation known as "Medicare." We said this legislation was unnecessary. We said this legislation would tax great numbers of the workers of this nation to provide for the rich as well as the poor, only because of a birthday and we raised the question, "Is it wise to tax the workers of the nation to pick up the bills for 20 million Americans, when only four or five or six million are in need of help?" What physician would think it wise to treat all members of a family for a disease, when only one or two members of a family of eight or ten are ill? Is it wise then to raise the question in the field of economic illness, that in order to solve the problem of two or three, we must establish a giant dole, a great welfare program, that immediately blankets in 20 million people, whether they need it or not, only because of a birthday? We said if they institute such a program, the cost will not be the billion, three hundred million prognosticated by the then undersecretary, now secretary, it will exceed this two or three times. We also said it will be paralleled and coincidental with the development of increasing red tape, increasing bureaucracy, the need for an ever increasing number of people working in government agencies across the land.

Our hospitals will become crowded, older people will go in as a matter of right, will refuse to go home because they like the kind and care that they are getting, and then ultimately when the cost is greater,

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* Remarks before the Seminar on Comprehensive Health Planning, held at the Columbia Club in Indianapolis, March 30, 1968.

** Dr. Annis is past-president of the American Medical Association.

when the hospitals are crowded, these same people will point their finger to the medical profession and say it is their fault. This is a little history. . . and in two years we have seen this history.

Prepaid Group Practice

I'm not here to say I told you so but I'm here to remind you of the kind of people with whom we are dealing. In Chicago, the week-end before last, under a program sponsored by the AMA, we had a number of those from Washington using our platforms to sell their ideas, our honestly motivated physicians, to sell their ideas. I heard them say that the only ultimate solution to the problems of medical care was prepaid group practice, with doctors paid by a central government, practicing under terms, as dictated by non-medical people.

They say there is no master plan, well then let me quote briefly from the U.S. Department of Health, Education and Welfare bulletin, under the date of October 19-21, 1967, promoting the group practice of medicine. Let me share just a couple of its words with you. "Conference objectives—to explore ways to stimulate the group practice of medicine—to find ways to stimulate the group practice of medicine—how to promote, not whether," and in its very opening preamble—"all of us who are participating in this national conference have a common goal, a promotion of group practice as the optimum method of organizing our health, manpower and resources."

Now it was pointed out at this Congress in Washington, the week-end before last, that only 15% of the physicians in the nation are involved in group practice of varying kinds: that 85% of our physicians are still in the private practice of medicine. This was very easily overlooked by several of those promoting their ideas, because they merely indicated that under the pressures from Washington, this can be eliminated, as physicians no longer compete one with the other. . . all will come in, under force or otherwise, by changing the laws in the states, if necessary, as indicated in this same publication, but ultimately the solution to the problem would emanate from Washington.

Well you know it always amuses me when I hear some of these programs and plans that emanate from Washington, D.C. They go back to that old shibboleth, and we heard it repeated today by at least two of our speakers, that a child born in any one of 14 other nations has a greater opportunity to live and survive than in the United States. There is a good old expression in southern Michigan and I think it's true in Indiana, "hog-wash!" I absolve the non-medical members of HEW or anything else, for repeating a speech written by Nelson Cruishank of the A.F. of L.-C.I.O. for Walter Reuther, some seven years ago when I debated him.

I absolve those who don't know any better, but those who should know what the world health organization puts in its own preamble, knows that you cannot honestly, scientifically and in fact compare the records of nations when the norms from which the records are derived are totally different. And it is wrong to compare a little nation like Sweden, a homogeneous nation of similar genetic background, practically no admixture, especially of non-whites with a heterogeneous nation like these United States, where 11% are non-white, when the non-white health record in every nation of the world is far below that of any white nation in the world.

Our Nation's Capitol

And if we want to point a finger and say that this as an area doesn't know what it is doing, and we had better do something about it, well then let's take a little area of the United States, the smallest of all, Washington, D.C., depending primarily for its operation, and its government, and its services, and its benevolence, and its welfare upon the administration and the Congress . . . and what do we find? One of the highest rates for infant and maternal mortality in the nation in the shadow of fine hospitals. We find one of the sorriest examples of an educational system that is deteriorating and they don't know what to do about it.

Worse than that, the Senators and the Congressmen, elected by these United States, have to send someone home with their secretary after five-thirty in the evening to protect her person, because she may be in serious jeopardy in the Capitol City of these United States. . .one of the sorriest crime rates in the nation and these are they who have a solution to all of our problems. Is it unreasonable to ask, "Let us see by what you do, that you are capable of solving a little simple problem for a small district, that most of you can see by looking out of your offices, before you attempt to tell the people in the 50 states that you know better than they how to solve their problems at the local level." Well I think we ought to be a little realistic.

I agree with Dr. Offutt today when he said, "We don't dare sit on the sidelines." I agree. We can't ignore these problems and they are not going to go away if we forget them. They are going to get worse unless we get into them. We heard today how governors and mayors came to Washington, because they suddenly recognized the importance of health planning. But Wilbur Mills of Arkansas reminded me and others, why they were there. They were called there by the President of the United States. They were told, "Come to Washington and testify in favor of this legislation and you will have extra money to take home with you." This wasn't a spontaneous outpouring of our leadership. this is a typical example of the man-

ner in which they have attempted to lead the thinking of the American people, and say the people demand this legislation. This is absurd.

Long-Range Plans

What we are dealing with today is merely one part of a long-range program to dominate and control the medical profession. It was not the people of these United States who demanded Medicare. It wasn't the people of the United States who demanded OEO programs, or the Head Start Program, whether they would need it or not, or the Regional Medical Programs, nor was it their elected representatives. And to say that the Congress wrote this is not in keeping with the facts. These bits of legislation were formulated in the office of the Secretary of Health, Education and Welfare, under the present secretary, not under his predecessor, an honest man, who tried to bring a little dignity to a department, that was in need of it. When he left after service, the president of the United States didn't even have the courtesy to say, "Goodbye", much alone, "thank you for service well done."

The man who really was behind the lines, he's been there all the time, he's the one who on other occasions has bragged of the fact that he was one of the chief architects for the system in England . . . in England, where medical care deteriorated, has deteriorated as in no other nation in the world and it is no longer even listed as among the major nations. He bragged of the fact that he too was one of the consultants when they were setting up their programs in Saskatchewan and in Canada.

We have to be realistic, and we have to remember who the enemy is, and we have to remember that Medicare is not a good program. It is a dole and to call it insurance is a misuse of the English language. It is public welfare: it is a handout to 20 million Americans. Think of how much we could do with Medicaid for the needy, if we had the billions that they spent, paying the bills for people well able to pay for themselves. And so when the bills went up from a billion three to six billion dollars, they blamed the doctors and the hospitals, instead of blaming the ones who are the number one source of the increasing cost of medical care . . . an administration which is wasteful and profligate with its spending of the people's money, and year after year spends more money than it takes in, and runs the printing presses to depress the value of the dollar.

A Matter of Right

This number one cause for the increasing cost for medical care, and the number two cause . . . the bureaucracy, the increased numbers of people, the raise in the increased numbers necessary to carry out their unnecessary programs, coincident with dollars that depreciate in their value. And older people who have been told, "That now that you're in the hospital, you can stay there as a matter of right." Well I know that we heard this afternoon, that it is the doctor who determines who gets into the hospital, it's the doctor who determines what takes place when they're there, and it's the physician who determines when they go home. This was written by somebody who never practiced medicine. . .because you and I know, that people now go into the hospital as a matter of right. They're over the age of 65 and the all-powerful leader of the party says it is their right. While they're there they say, "Doctor while I'm here my great-great-grandfather on my mother's side had diabetes, run a blood sugar. I also want an electrocardiogram, and I want this and that and the other test while I'm here, as long as it is gonna be covered by Medicare." It may not be necessary but that's not the point. This is a matter of right.

Things haven't really changed a great deal. I recall back in Miami it used to work this way when we dealt with people, even before Medicare and other programs. You'd come in to see Mrs. Jones, after you took her sutures out, after a gallbladder or colon or what have you, and you already let her stay an extra day or two. Her wound is healing well, she's up walking around the ward and she knows all of the patients, she has a truly marvelous time and then you, doctor, come in and say, "Well Mrs. Jones, you're getting well now, you'll be able to go home tomorrow." And she says, "But doctor you don't know how weak I am". . .or. . ."Doctor before my daughter went back to Indiana, because she had to go, because her husband works hard and she has three children, she told me, don't you let those doctors send you home until you're well."

And so the doctor signs her out, and then he makes the rounds the next morning and he goes in and her chart is still there. He turns to the nurse, "I thought Mrs. Jones went home, I signed her out." "Doctor she hasn't been out of bed since you left yesterday." And so you go in and you've heard all of this. . . here's a nice little old lady who lives down there all by herself, her family is up here, she's lonely. In the morning, the first one who wakes her up is the nurse who comes in and brings her a glass of good, cold, Florida orange juice, to start the day right. Then a little bit later they come in with the morning paper and if she can't afford to pay for it, they give it to her anyway, if she wants to read it, and somebody else pays for it. Then they bring her breakfast, and then in mid-morning they come in and give her another orange juice, and something else at noon.

In the meantime doctors have been in, nurses, interns, people, people. . .and she's had the pleasure of being associated with nice people. And so it goes, in the afternoon they

give her an eggnog, and in the evening they rub her back, and this woman is enjoying life as she has not enjoyed it for a long time before she went to the hospital. Now that doctor comes in and says, "You go home." And your problems are like ours. We finally get hold of the friendly visitors, and family service, and we get somebody to come by and see her, and make friends with her, and tell her that when she goes home, we're going to come and bring her the paper in the morning, and see her in the afternoon, we're going to do her shopping for her, etc. Four or five days later, we get her home. And they blame this on the medical profession.

We used to take care of all these people for nothing; then they insisted that we charge them our usual and customary fee, and so when we do, they add it all up and they say, "Oh the price tag, those doctors." You see, they tell the American people. . .and the liberal press takes it up, "Doctors have raised their fees," instead of saying, "Doctor's incomes have gone up", because they now are paying for what they used to do for nothing. They were happy to do it. Now we're paying under a program that they didn't ask for, but was forced on them.

Now we're pointing a finger because patients stay in the hospital longer, because of a government political program that makes it not only possible but a matter of right, and we blame the physician for being paid under a program which was forced on him. Those who say the American people asked for it haven't read history. And for those that say the Congress wrote this kind of legislation, they don't know what's going on in Washington, because these programs were not written in the Congress. They were written in the Department of Health, Education and Welfare and then they were sent over to the Congress, and many of them were coerced through the Congress by arm-twisting, coercion and threats . . . a sorry way to pass any kind of legislation. The so-called Medicare is a prime example of government by arm-twisting, rather than law-making after discussion, deliberation and debate.

No Control Over Legislation

Well, they passed it and then what happened. All of a sudden they found out they passed something that they couldn't control. All of a sudden they found out that politicians can't practice medicine, nor can their political appointees, and so they came running to the medical profession and they said "Look fellas we need your help." Boy they sure did. You know doctors never stop taking care of their patients: they never stopped. And so we have these government programs, they now are laws, whether we like 'em or not. We have to be realists. Whether we like them or not, they are the law.

Medicare is the law and it's up to you and to me and our colleagues to make it work as best we can, to make it work as economically as we can, to cut down the abuses as much as we can, even though, as a profession, it is impossible to eliminate the innate abuses which are inherent in such a political program. It's like the V.A. program, the same benevolent program that talks about your and my inability to limit the cost of medical care. Take the most costly hospital in any city in Indiana, or New York, or Ohio and compare it with the most economical hospital run in the V.A. system, to find out who knows a little bit about economy.

You know . . . people come to Miami, it's a strange thing, there's one batch comes in about December 21st and 22nd, those are the ones whose children are grown and not going to be home for Christmas. The others come in around December 26th and 27th. Some of them come with their chauffeurs, some of them have them drive them up to the V.A. hospital and when the physician in attendance tells them that they don't qualify, they pick up the phone and they call Congressman Pepper, and the Congressman merely reminds them that this is a man who gave service to his country, and though he's there for a hernia, or a sore throat, or because he doesn't want to pay $35.00 a day on Miami Beach, he's admitted and our V.A. hospital all of a sudden is just filled, from about two or three days before Christmas until about four days after New Years . . . then they leave to go to New Orleans and the Cotton Bowl.

I get a little bit tired of people who view with alarm the state of this nation's health, when in the same breath, they would mislead the American people to believe that we are lagging behind any other nation, because of the opportunities made available by you and our colleagues.

I have traveled over 1,500,000 miles, including twenty-four other countries. I have visited medical centers in Rome, Paris, London, Oslo, Helsinki and Stockholm as well as in countries to the south, and for anybody to stand up before any audience, anyplace, in any state, in these United States and attempt to tell the American people that other nations are leading us in clinical medicine, in research medicine, in teaching medicine, or in anything else, they either are totally ignorant or they are deliberately not telling the truth. Oh, it's true if you go to these centers, you will find great doctors, and great teachers, and a few fine medical centers but it's also true, like in the big medical center in Helsinki, when you go in and see a man with great talent taking care of a cancer of the larynx and doing laryngectomies, comparable to the best in some of our great clinics, you get an education. You find out why his patients are waiting as long as two months, after the establishment of the diagnosis of a carcinoma and the an-

swer, "It is the only hospital in a whole nation where they can treat this disease."

False Statistics

To say they don't have them is wrong, but where they've got one, we've got a hundred, where they've got ten, we've got a thousand, and they don't tell the rest of that story. They continue to use these false statistics in an effort to low grade kind and quality of medical care and medical services across this nation. When we talk about half of the 18-year-olds who are unfit for service, for one reason or another, and about the infant and maternal mortality, we're not comparing apples with apples, we're comparing totally different things. When you go to Washington, D.C., as your dean pointed out today, some who live in the shadow of your own medical school fail to receive health care, not because it is not there, it isn't because our system doesn't make it possible, it isn't because the physicians are unwilling to provide the service or unable to do so, it's because of the lack of education, the lack of nutrition, the lack of other things that have nothing to do with medical care. These figures should be cited as a reason for better education, for better nutrition on the part of many of these young girls who lose their babies in the first day or two, or three, only because of protein deprivation. They don't tell the rest of the story and these indictments are not indictments of medicine or the system of medical care, they are the indictments of big city living. They are the indictments of ignorance. they are the indictments of poverty . . . though it's true that in our efforts to up-grade these people, we want to direct our efforts toward health.

It is wrong for anybody to suggest that these are the result of the inadequancy of our system, or from the failure of the system of medical care in this country. I must admit I get a little bit upset too when I hear some such statements. . .what was that classic. . . ."We want to eliminate the continuation of the dead hand of the past." This is my 30th year in the practice of medicine and every year I see things that would have been fantastic only a few years ago; and every few years we have developed things which would have exceeded the promise of an Aladdin's lamp when I was a child. This is not a cold, dead, unmoving, unprogressive body of medicine. It is the most progressive, the most alert, the most willing to change, the most willing to adapt, the most willing to contribute to its fellow physicians and physicians of the world that has ever existed in the history of this nation. I am getting tired of people who will low rate our profession and what it has done because it has made a record which will stand in history, when honest historians begin to record its true record.

"They Got in Trouble"

They came to us because they got in trouble. I've had the opportunity to visit some of the OEO programs in Boston, Los Angeles and San Francisco. I haven't been in Watts, but I've talked to physicians who lived there, including colored physicians who lived there, and if only our liberal press would tell the real story, just as if our liberal press would tell the real story of medicine in England, medicine in France, medicine in Italy. In England today if you're scheduled for surgery, for a hernia or veins, your waiting period can be six months to two years. If they tell the real story to the American people, they'd take a second look. And if they'd tell you the real story of the OEO medical programs, they would tell you that with no exception they fell on their face, until they went to the local physicians, through their local county medical society. They said, "Look fellas, we've got trouble."

Imagine going into an area like Watts, in the Los Angeles area, where they had some 20 or more Negro physicians with a great plan from Washington to solve the medical problems. They descended there, without talking to the first local doctor, without discussing it with their own doctors. Is it any wonder that they had trouble and came running for a little help from the Los Angeles County Medical? In every instance, and this is a credit to physicians as physicians and a credit to physicians as citizens, under programs that we know were unnecessary in many instances, and no good in others, nevertheless, because they coincide with the law of the land, our physicians have come forth and bailed them out.

The only reason that Medicare is working as well as it is, and Head Start as well as it is, and OEO as well as it is, is because the physicians of this country have never refused their primary work, the care of the sick, even under programs that they didn't like, that were forced on them from without. I agree that on these programs for a regional medical area and our so called voluntary regional medical programs, we are in this position, we are being compelled to participate in a voluntary program of areawide and regional planning or we will be compelled to accept areawide and regional planning on the part of people who don't know anything about it, because again it is law. Admittedly another law was hurriedly pushed through, arm-twisted like the rest of them, with little or no understanding on the part of Congressmen, many of whom admitted to me personally, they never saw the bill, they never read the bill, they merely voted for it because they were told to. What a way to pass legislation . . . yet this is the law.

You and I had better become realists. Under the law, they've made it very careful so that doctors will

never be even up to 50% of the members of these planning committees. They want us out-voted before we start, which is typical of this administration. For every single commission that they've appointed, including the last one on Civil Rights, the conclusions are written before they ever start the meeting, and the conclusions are such that nine out of 15, if it's a 15-man committee, nine out of 15 are committed to the preconceived conclusion. Just take a look at some of these commissions right down the line and you'll see that this has been true.

Today, during one of our presentations, I made a little notation every time the words came up on this voluntary thing, where we're asked to go into partnership with government and I wrote . . . . . "must be required" . . . . . "it is mandatory" . . . . . "in order to obtain funds" . . . . . "the obligations of the state" . . . . . "funds will be withheld" . . . . . "plans must be in accord with." Remember when they said there would be no strings attached to Hill-Burton? Not only were there strings attached, but a couple of years ago, when the program then was nine years old, they held that any hospital that had received federal funds under Hill-Burton retroactively became a federal instrumentality, subject to the rules and regulations written by this administration. Well these are some of the things that I think we ought to take a look at.

Do It Our Way

It seems to me that partnership should be a joint relationship on the basis of mutual honesty of purpose, mutual willingness to work toward a common aim. Fancy phrases of aims and objectives are not enough. We have to have some demonstration of the honesty, and the integrity, and the earnestness of purpose of those who have asked us. They say that planning is not a decision, it merely establishes the program. Well, that's like some of the other programs that have been planned and established. Stop and think yourselves, in many of the rules and regulations that have come your way, and the "carrot" is that if you want the money fellas, you'd better do it our way, otherwise you don't get it. Oh there are those who say we need greater manpower, and no one denies it.

Your dean pointed out today the very important part of people needing access to the facilities that are available. Great numbers of those, where they point to the very sorry record of infant and maternal mortality, are within a stone's throw of medical institutions that beg them to come in. And when people die after an accident of a ruptured spleen because they belong to a cult that doesn't believe in blood transfusion and they would rather die, these too are a part of the statistics. We talk about emergency care being inadequate, and I think this is true. We talk about our need for medical manpower, and there are editorials emanating from HEW, carefully reprinted in many publications, including a lead article in *Life* magazine, damning the medical profession for our failure to produce more physicians. And yet if you look at the records, you will find that in every year for the last ten years, we produced more physicians than we did in the year before, and you will find that we produced more percentage population than ever before.

But you also know and I know that the medical profession, whether it's ISMA or the AMA, doesn't have anything to do with establishing a new medical school. This is the decision of the university, of a college, of a community, or of a state. They're the ones that have to come up with 30 to 50 million dollars to get it off the ground. But once they do and embark on this program, then the full facilities of the medical profession are brought to bear voluntarily and willingly, in an effort to obtain a creditable, knowledgeable, competent staff to constantly upgrade the kind and the quality of medicine which will be taught in this new medical school. But they indict us, the only profession that freely teaches its younger competitors how to be better than their elders. Men in every field share with younger ones coming along, the knowledge and skills that they acquired over years and they share it over weeks and months, to constantly upgrade the profession. Well I have a simple solution and I think that might qualify me as a planner, I'd better keep it quiet, because if. . . . . even though I'm a Democrat, you know I'm the kind that's quite persona non grata these days in Washington.

Incidentally, I don't know where Mexico, Indiana is, some of you do I'm sure. I had a letter a couple of years ago from a lady from Mexico, Indiana and she said, "Dr. Annis I've seen you on television, and I've read some of the things you've written, and I cannot understand how anybody can talk the way you do, and write the way you do, and continue to be a member of the party of brother Bobby and Hubert Humphrey." I wrote back and I told her I was born, reared, and educated in the North. I came from Detroit, but I have lived in Florida for quite some time; that Miami is really a northern city in the south. I'm still a northerner but I'm also a Democrat, because most of my friends throughout the south are what I call, conservative Democrats. But as long as she raised the question and having read her letter, I answered, saying I could not in my own mind conceive of how anyone could write a letter the way that she did, espousing the philosophy that she did, and continue to be a member of the party of Javits and Kuckel.

The Solution

But I have a simple solution to our problem. I can tell the adminis-

tration, of course they won't listen, I can tell the administration how they can cut the cost of medical care this year by one-third or more in dollars and also how we can create a surplus of medical manpower at the same time, merely following in logical conclusions the compulsion that they recommended at our meeting on health manpower and meetings where they want to compel us to participate in group practice. Under the words that I reviewed with you that I heard today. . . . ."we must". . . . .and "it's mandatory". . . . .and "we've got to do this and we've got to do that" . . . . . so let's just use the same system.

Today in the United States we killed 140 people on our highways and we injured and put in our hospitals 6,000 more. Those 6,000 are the greatest single drain in numbers of beds, the greatest single drain in costs of hospitalization, and the greatest single cause of prolongation of stay in the nation's hospitals today, and they demand a tremendous amount of medical manpower. Interns, family physicians for the elderly and for the young, whose patients are injured, the orthopedic surgeon, the traumatic surgeon and the maxillofacial surgeon, the anesthesiologist, right on down the line, we have had a tremendous condensation of medical manpower to daily meet our number one problem and that is trauma.

Now all we have to do is compel everyone in the nation to drive their car within the speed limit. Second they're going to drive their car at least a car length behind the one ahead for every ten miles per hour. This will eliminate most of the trauma and most of the deaths, most of the serious accidents which are filling our hospitals and costing so much and constantly increasing the statistic of the increasing cost of medical care.

Then in the common good, in order to promote a great society, we're going to see to it that all women who bear children are properly fed, properly nourished, properly housed, properly clothed and we're going to make all Americans get up every morning and exercise regularly in the interest of their health and the common good. We're going to make them eat proteins, carbohydrates and fats, fresh fruits and fresh vegetables in proper amounts, regularly, every day for the common good. We're going to deny them the use of tobacco, in the common interest, because this is necessary for the great society. We're going to limit the amount of alcohol that they imbibe to certain amounts, at certain regular intervals, and I tell you one thing, we would have less deaths. Immediately, we would have less hospitalization, we would cut the cost a third or more of the total cost, every single day. Our people would be healthier, they would live longer, they would require less medical care, and doctors would be vying with one another to find somebody who is sick so that they could make a living. But . . . we wouldn't be free.

But they say, that's no problem, we're not going to compel the people, we're going to compel the doctors. You see we have 70 million people who vote and only 250 thousand doctors who vote. So in the consistent, logical thinking of this administration, doctors are expendable. But let's be honest while we're being facetious.

Increasing Costs of Care

The figures that I've given are not in error, nor are they exaggerated, nor is the cost, and yet those of the enemies of American medicine who would use these as excuses to enslave us, put them all together in statistics and say there's an alarming increase in cost of medical care, blaming us instead of saying, why, why is it going up? If we want to be realistic and honest, then let's take a look at the why. And as trauma and all of these things have ininceased, what have we done?

We've constantly upgraded our knowledge and skills, constantly running, even as we stand still, to provide quality care, to reconstruct and repair the damages that result from this kind of living. When they say that they are concerned about the high cost of medical care, is it unreasonable for us to say, "Why are the costs up?" Trauma is way out in front and this certainly is not the fault of the medical profession. For people who die because of neglect, because they refuse to go to the medical clinic, for women who lose their children, who refuse to come in when they are begged to come in for prenatal care and proper care throughout, is this the fault of the medical profession? While we are looking at these statistics, and I don't mean to deprecate their importance, or to say that these are not serious problems, but I say this to an administration that comes to the medical profession and says to us, "We need your help."

I think it is about time we ask them to quit hitting us over the head, as whipping boys in the political arena, for their own political ends, and let's rather reevaluate what are the problems, because medicine has never failed to address itself to a medical problem, irrespective of its source. But we are being used, politically, our profession is being downgraded deliberately. They use everything that we contribute of value to them and their programs, to establish programs that wi'l work, that can work only through our cooperation.

Somebody said that I'm against more doctors and I said, tell that to my two sons. I have two of my five, who are in medical school. And when some of their colleagues, as they did in Milwaukee the other night, ask me, what do I think of the future of medicine, I say, I think the future is unlimited because I have come to know the profession of medicine and the people who make it what it is.

I've seen them from one end of this country to the other, and I know them for quality, men and women of honesty and integrity, and they'll be pushed around. In their honest desire to be good physicians and good citizens, they'll even be taken in on a whole lot of programs, that if they knew more about they might question or demand a greater say so, but in the end their basic intelligence will let them recognize that they have been used as cats-paws, and the day of righteous indignation will see them rise up and play the role that they must and should in their interest, in the interest of the profession, but more important still in the interest of the people and the nation we serve. And we will take a position of leadership in the political arena, and in matters of health, where we know by experience, and background, and training and education. We will exert our influence and when they come to us and say, we need your help on these programs, we'll say, "We'll give you our help, we'll cooperate with you, we will work with you, but we will not be pushed around."

I agree with your dean, I agree with your health officer, we cannot keep ourselves away from these programs that are the law of the land. But while we do it, let's do it in the light of a little bit of history and let's not forget the way that we have been kicked around for political purposes, in a political arena for the last six to eight years, and when we go to Washington, we will walk in there as citizens and say, we want to help. We'll do everything we can to increase the quality of health care in this nation, to all of its citizens, to increase the number of our schools, to encourage more young people to go into medicine, to constantly upgrade the quality of our product, but we will do it in the interest of the people we serve. We will no longer be used as cats-paws by politicians who don't appreciate the quality of medicine that has made American medicine pre-eminent in the world. ◄

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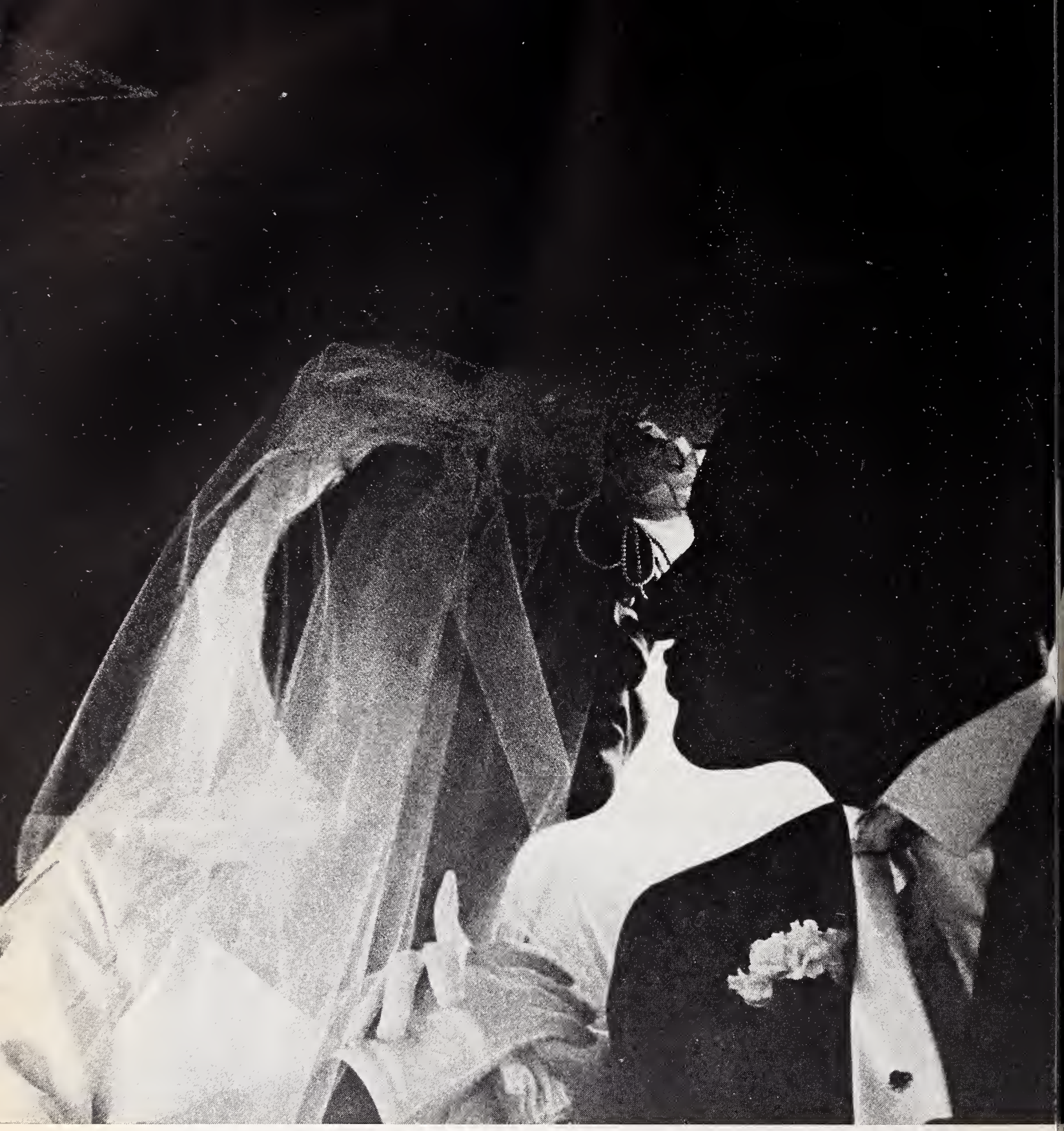
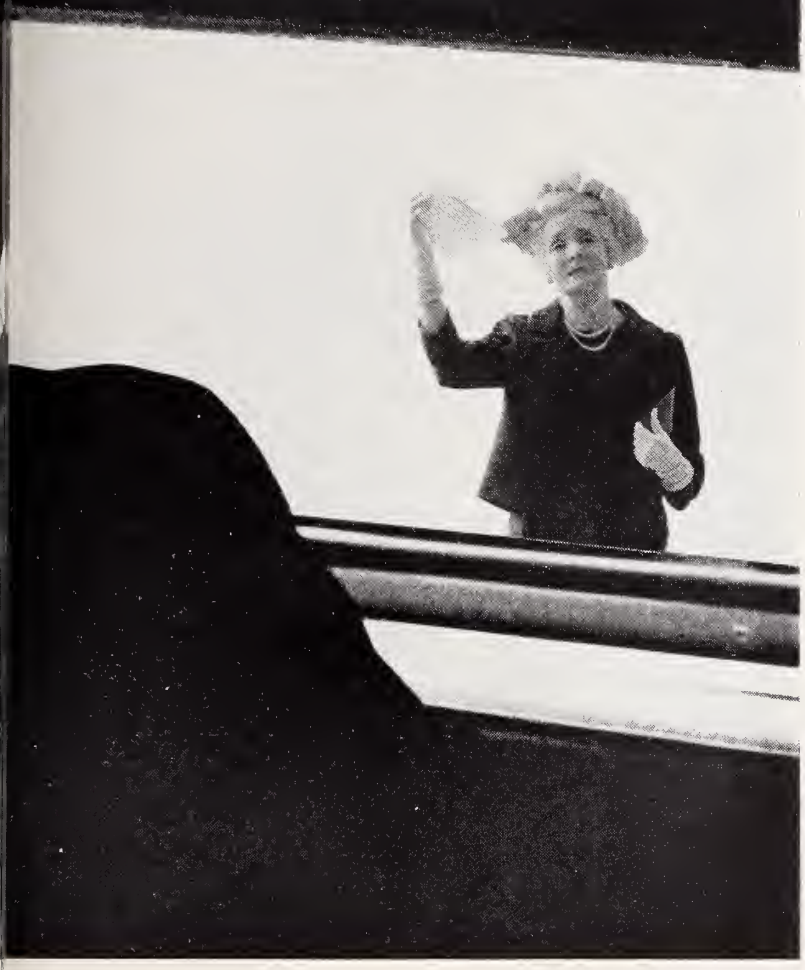


Indications: Tofrānil is recommended for the treatment of depressive states of diverse psychopathology.
Contraindications: The concomitant use of Tofrānil and monoamine oxidase inhibiting (M.A.O.I.) compounds is contraindicated. Hyperpyretic crises or severe convulsive seizures may occur. Potentiation of adverse effects can be serious or even fatal. An interval of at least 7 days after M.A.O.I. therapy has been discontinued should be allowed before Tofrānil may be substituted. Initial Tofrānil dosage should be low, increases should be gradual, and the patient's progress should be carefully observed.
Warning: Clinical reports have suggested that there may be a risk of teratogenesis associated with the use of this compound during the first trimester of pregnancy. Unless, in the opinion of the prescribing physician, the potential benefits outweigh the possible risks, Tofrānil should not be used during the first trimester of pregnancy.
Cardiovascular complications, including myocardial infarction and arrhythmias, have occasionally occurred in susceptible individuals. Patients with cardiovascular disease should be given the drug only under careful observation and in low dosage.
Precautions: Since suicide is always a possibility in severely depressed patients and one which may persist until significant remission occurs, such patients should be carefully supervised during early treatment with Tofrānil. Some severely depressed patients may also require hospitalization and/or concomitant electroconvulsive therapy.
Because of its anticholinergic effect, caution should be observed in prescribing Tofrānil for patients with increased intraocular pressure.
In rare instances, transient cardi arrhythmias have occurred in hyp thyroid patients and in patients re ceiving thyroid medication when Tofrānil was added to the regime Imipramine may block the pharm cologic activity of guanethidine a other related adrenergic neuron-blocking agents.
The drug is not recommended at present time in patients under 12 of age.
Adverse Reactions: Dryness of th mouth, tachycardia, constipation turbances of accommodation, sw ing, dizziness, weight gain, urina frequency or retention, nausea ar vomiting, peripheral neuritis, mil parkinson-like syndrome, tremors rare cases of falling in elderly pa tients, confusional states (with su symptoms as hallucinations and orientation), activation of psycho schizophrenics and agitation (inc

When a milestone in life is marred by depression...



Often in the mind of the lonely, widowed, depression-prone individual, she's not gaining a daughter...she's losing a son. The occasion may be marred by depression with such symptoms as feelings of sadness, incapacity, helplessness and hopelessness.

Tofrānil often relieves symptoms of depression.

As maintenance therapy during the active phase of depression, it may help prevent relapse.

The use of Tofrānil in patients receiving M.A.O.I.'s is contraindicated.

In patients with cardiovascular disease, hyperthyroidism or increased intraocular pressure; or in those receiving anticholinergics (including antiparkinsonism agents), thyroid medication, or antihypertensive adrenergic neuron-blocking agents; and in those in their first trimester of pregnancy, the special precautions listed in the prescribing information should be carefully observed.

Toxic reactions severe enough to require discontinuation of Tofrānil are uncommon. However, for complete details, please refer to the full prescribing information.

Tofrānil® imipramine hydrochloride Geigy

ypomanic and manic episodes) h may require dosage reduction or addition of a tranquilizer or orary discontinuation of the drug, ptiform seizures, orthostatic tension and substantial blood sure fall in hypertensive patients, ura, transient jaundice, bone mar- depression including agranulocy- , sensitization and skin rash ding photosensitization, eosino- a, and mild withdrawal symptoms udden discontinuation after pro- ed treatment with high doses. asional hormonal effects (im- nce, decreased libido, and estro- c effects) may be observed. pine-like effects may be more ounced (e.g. paralytic ileus) in eptible patients and in those g anticholinergic agents (includ- antiparkinsonism drugs).
atient Adult Dosage: Initially, g. daily, increased, if necessary, to 150 or 200 mg. Maintenance dosage may be lower, 50 to 150 mg. daily, if possible.
Geriatric and Adolescent Dosage: Initially, 30 or 40 mg. daily, which may be increased according to response and tolerance. It is usually unnecessary to exceed 100 mg. daily.
A lag in therapeutic response, lasting from a few days to a few weeks, should be expected. When dosage recommendations are already being followed, increasing the dosage does not normally shorten this latency period and may increase the incidence of adverse reactions.
Availability: Tofrānil: Round tablets of 25 and 50 mg.; triangular tablets of 10 mg. for geriatric and adolescent use; and ampuls, each containing 25 mg. in 2 cc. for I.M. administration.
(B)46-850-C
For complete details, please refer to the full Prescribing Information.

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TG-65222

YOUNGSTERS visiting the Children's Pavilion of Methodist Hospital frequently are overheard asking their parents when they can come to the hospital to stay as a patient. The warm, friendly, inviting atmosphere of the new pediatric hospital was created with great care to have just that effect on children.

The eight-story structure with facilities for 144 patients, ranging from infants through 16-year-olds, represents some of the newest ideas in construction and design and the most recent developments in scientific medicine. Special furnishings and decor create a true "children's world" in which tender loving care is rendered in abundant measure.

Fear and anxiety begin to recede when a child first enters the main lobby and sees the large colorful bird cage.

Fully equipped and cleverly decorated playrooms on each patient floor permit a variety of morale building activities under the direction of a play supervisor, who is assisted by a staff of volunteers. The main playroom features a huge full-color mural of the pace lap of the Indianapolis 500-Mile Race that serves as a background for three child-size race cars mounted on a semi-oval track. A set of official race flags, hanging from the wall, contributes to the realism of the scene. Tony Hulman, Speedway owner, provided these decorations.

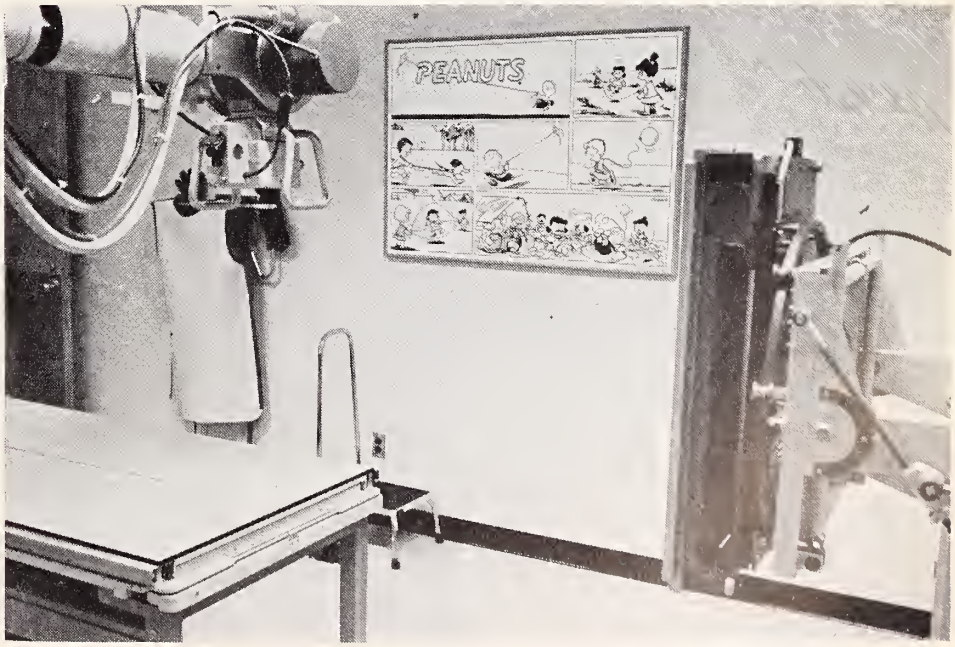
Charlie Brown, Snoopy and other characters of the "Peanuts" cartoon strip greet young patients from the corridor walls of the x-ray department. Large cartoon blowups decorate the walls of the x-ray rooms. Because these decorations have had such positive effects on children, plans are underway to place colorful designs of animals and nursery rhyme characters on the ceilings of operating rooms and throughout the surgery area.

The Children's Pavilion was also designed with parents in mind. For example, all private patient rooms

CHILDREN tend to forget their fears about hospitals when they enter the main lobby and see this colorful cage with more than 20 live, chirping birds.

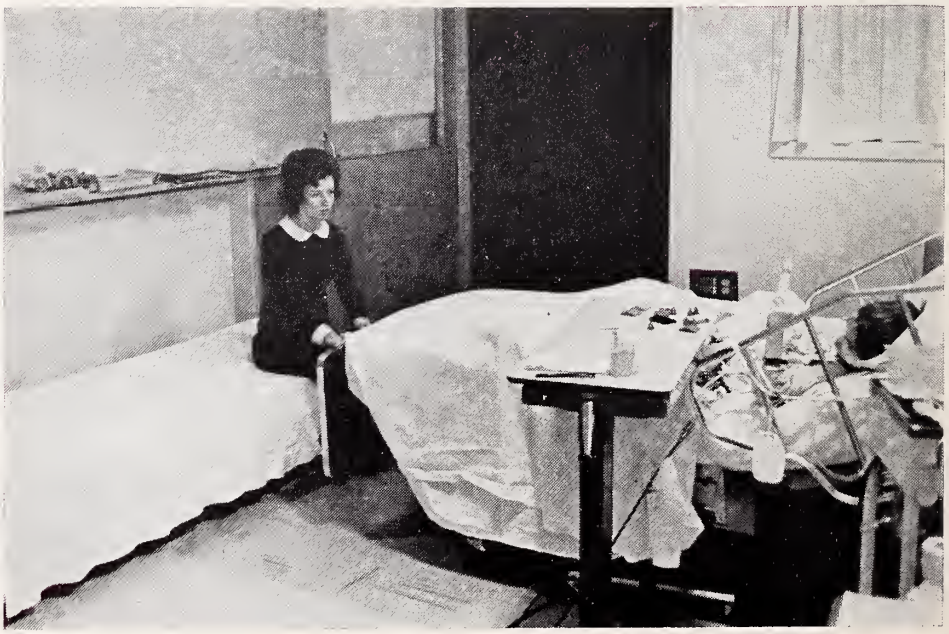
An Introduction to the Children's Pavilion of Methodist Hospital

YOUNG patients "ride to victory" in miniature race cars before a full color photomural of the 500-Mile Race in the main playroom on the third floor.



THE Radiology Department features "Peanuts" cartoons on the walls which helps to create a "children's world" atmosphere. The x-ray equipment is designed to operate faster than regular equipment used for adults.

A gift shop full of toys is a fascinating place for patients. The new $4.5 million hospital was opened in December.



MOTHERS who want and need to stay with their sick children can do so in private rooms, each of which provides a bed that folds into the wall. All rooms have toilet and closet facilities and bulletin boards.

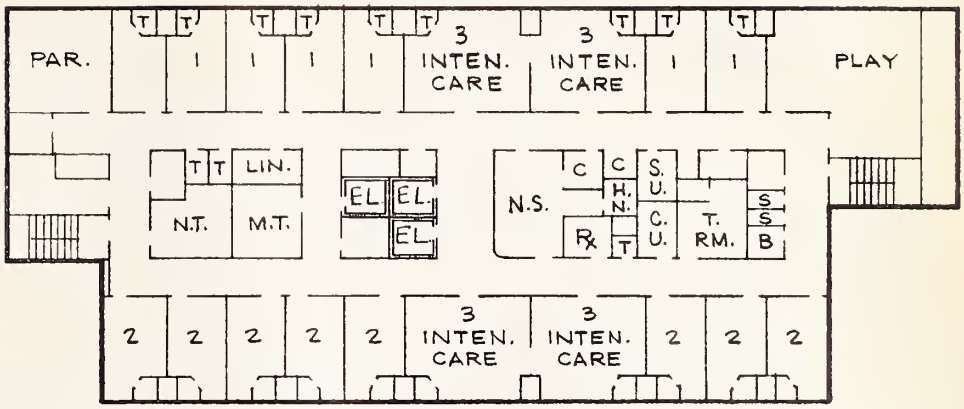
have built-in beds that fold down from the wall so that mothers who want and need to stay with their sick children may do so. Parents also are encouraged to help feed and care for their children if they have the desire to do so.

Each patient floor has a comfortably furnished lounge, equipped with a kitchenette, where parents may go for a cup of coffee or a snack and to talk with other parents or professional staff members. A free coat check service is provided for parents on the main floor and each lounge has a large coat closet. Public telephones are located near the lounges and on the main floor.

Conveniences in each patient room include toilet facilities, ample closet and drawer space, bulletin boards, two-way communications with the nurses station, piped in oxygen and connections for private telephone and TV service. Electric-powered, adult-size beds are provided for older children while younger patients are placed in cribs of the latest design. Clear plastic, ventilated roofs supplant the old crib netting that sometimes made a child feel "caged."

Each of the three patient floors accommodates children of a certain age group. Infants and preschool children are on the fourth floor, ages six to 12 are on the third floor and ages 12 to 16 are on the fifth floor. Each floor has the same basic double-corridor floor plan which includes centrally located nurses stations, examining rooms, classrooms, shower and tub facilities and public rest-

BLUEPRINT OF THE 5TH FLOOR OF THE PAVILION.



CODE

PAR.—PARENTS WAITING
1 -PRIVATE PATIENT
2 -SEMI PRIVATE
3 -INTENSIVE CARE

PLAY—PLAYROOM
T. -TOILET
N.T. -NURSE TEACHING
M.T. -MEDICAL TEACHING
INS. -INSTRUCTOR
LIN. -LINEN ROOM
J. -JANITOR
N.S. -NURSING STATION

CH. -CHART ROOM
Rx. -MEDICINE ROOM
H.N. -HEAD NURSE
STG. -STORAGE
CA. -CARTS
S.U. -SOILED UTILITY
C.U. -CLEAN UTILITY
PAN. -PANTRY

T.RM. -TREATMENT ROOM
S. -SHOWERS
B. -BATH
EL. -ELEVATOR

rooms. All patient rooms have windows facing the corridor and no room is more than 90 feet away from the nurses station. Curtains may be drawn over the windows when privacy is required.

Two intensive care units, each having the flexibility of six to ten beds, are on the fifth floor. The Pavilion provides several types of isolation, including five-bed wards with a connecting clean workroom as well as individual room isolation.

Additional facilities on the main floor are a fully-equipped physical-occupational therapy department, E.E.G., meditation chapel, gift shop, social service, outpatient examining rooms, medical staff lounge, and offices for admitting, business, administrative and nursing supervisory staffs.

The lower level provides a cafeteria, vending machine area, kitchen, laboratory, house staff quarters, central supply room, offices for housekeeping and volunteer services and an underground corridor to the Methodist Hospital complex.

Services that do not require the patient to be present, such as laundry, medical records, accounting and library, remain in the central hospital so that there is no unnecessary duplication of services. ◄

ISMA Annual Reception for Indiana Delegation in Congress Also Honors Charlie Halleck

THE annual reception for the Indiana delegation in Congress and their chief administrative assistants was held March 7 at the Sheraton Park Hotel in Washington, D.C.

The reception also honored Hon. Charles A. Halleck, Second District Representative, who will retire this year after many years in the House of Representatives. The ISMA presented Mr. Halleck with a set of luggage.

The annual event culminated two days of personal visitation by members of the Executive Committee, Council and the co-chairmen of the ISMA Commission on Legislation. They discussed with the Indiana delegation legislation affecting medicine and also answered questions on various issues, including operation of the Medicare program.

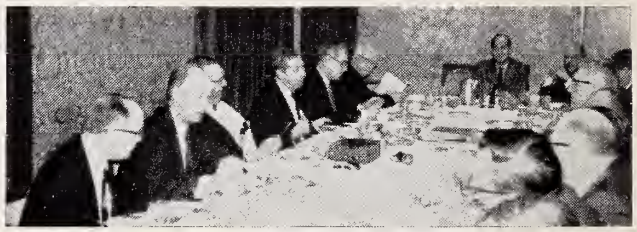
The staff of the Washington office of the American Medical Association briefed the delegates on matters pending before Congress and the committees of Congress and also on the legislative program of the AMA. The AMA requested the ISMA representatives to discuss specific issues with congressmen who were on the committees which would handle these issues.

The consensus was that it was one of the warmest receptions ever accorded an Indiana delegation. The Executive Committee and the Council, in addition, conducted their regular meetings while in Washington and attended the national AMPAC Workshop. One day was also spent with government department heads discussing comprehensive health planning, health manpower and Medicaid. ◄

HON. VANCE HARTKE, Senior Indiana Senator, talks at the reception with Dr. G. O. Larson, ISMA President.

DR. JOE BLACK, Seymour, Dr. Joe Dukes, Dugger, Mrs. Black and William Murphy, of the Washington office of Eli Lilly & Company, chat during the reception.

DISCUSSING matters of interest to Indiana medicine are Homer Budge, long-time friend of Rep. Halleck and former Congressman; Dr. Dwight Schuster, Indianapolis and Rep. Halleck.



THE COUNCIL met in executive session with Dr. William J. Putnam, Associate Director for the Operations Office of Comprehensive Health Planning of the Department of Health, Education and Welfare. Shown (left to right) are Dr. P. J. V. Corcoran, ISMA president-elect; Dr. Putnam; James A. Waggener, ISMA executive secretary; Dr. William R. Clark, Fort Wayne; Dr. Lester H. Hoyt, Indianapolis; Dr. Ralph V. Everly, Indianapolis; Dr. Gilbert M. Wilhelmus, Evansville and Robert Amick, field secretary.

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News from Indiana University School of Medicine

Dr. Kenneth E. Penrod, provost of the Indiana University Medical Center, has been named chairman and senior executive officer of an executive committee formed at a meeting at New Orleans for the purpose of establishing a national organization of health center administrators.

The organization, Dr. Penrod said, will be composed of those health center administrators who are broadly concerned with the problems of health education, rather than deans and other officers who are principally involved with an individual school.

Eligible for membership will be presidents, vice presidents for medical affairs, chancellors, vice chancellors, provosts and directors concerned with two or more kinds of schools in the categories of medicine, dentistry, nursing, pharmacy, allied health, public health or veterinary medicine. The organization will address itself to the broad issues of health education and coordination and interpretation of opinion to legislative bodies.

* * *

With the appointment of a director of the newly created Division of Orthotics in the Department of Orthopaedic Surgery, the Indiana University School of Medicine will enter actively into the development and fitting of braces and assistive appliances for physically handicapped individuals.

The new director of the Orthotic Division is John J. Glancy, formerly Director of Brace Services at the Children's Hospital Medical School in Boston and currently instructor in orthotics at the New York University School of Medicine. Mr. Glancy is recognized as an outstanding leader in his field.

Modern facilities are now being constructed in the James Whitcomb Riley Hospital for Children with the financial support of the Riley Memorial Foundation. Necessary equipment will be purchased through a grant from the state welfare department and other granting agencies.

* * *

David H. Markstone, M.D., a 1962 graduate of Indiana University School of Medicine, has been selected by the Heed Ophthalmic Foundation of Chicago for a special fellowship in ophthalmology.

The award will sponsor a period of advanced training in diseases and surgery of the retina. These studies will be carried out under the direction of Fred M. Wilson, M.D., Chairman of the Department of Ophthalmology, Indiana University School of Medicine, Indianapolis.

Dr. Markstone plans to begin his fellowship in July, 1968, at which time he is scheduled to complete a two-year tour of duty in the Navy. Presently a lieutenant commander, he has been stationed at Portsmouth, Virginia, and assigned to the ophthalmology service on the staff of the Portsmouth Naval Hospital.

Prior to his commission in the military in July, 1966, Dr. Markstone completed a three-year residency in ophthalmology, also at the Indiana University Medical Center in Indianapolis.

The Heed Ophthalmic Foundation was established and endowed by Thomas and Ruth Heed of Chicago in 1946 for the purpose of providing support beyond the residency years for selected, outstanding young physicians in the United States who wish to take advanced post-doctoral study, in the sub-fields of ophthalmology, particulary ophthalmic surgery. ◄

1967 Record Year for Blue Cross-Blue Shield

(One of a series prepared by Blue Cross-Blue Shield)

A record $104,976,558 for members' hospital and doctor bills was paid out in 1967 by Indiana Blue Cross-Blue Shield, according to Guy W. Spring, President of Blue Cross, and Richard C. Kilborn, President of Blue Shield.

This figure represents the largest total paid to Indiana hospitals and doctors in one year since Blue Cross and Blue Shield were organized.

Indiana Blue Cross founded in 1944, and Blue Shield in 1946, since their organization have paid to hospitals and doctors the sum of over $1,000,000,000.

Operating expenses for the two plans for the year were 6.4% of income, with 93.6% available for members' hospital and doctor bills.

Spring pointed out that hospital care alone accounted for $73,406,990 of the combined payment for 1967, and involved 431,797 hospital cases paid for by Blue Cross. Blue Cross, in its first full year of service, averaged 35 cases daily. The average is now 1,660 cases paid daily.

According to Kilborn, more members relied on Blue Shield for payment of surgical and medical bills in 1967 than in any previous year. A record 987,136 claims by doctors totaled $31,569,568. In its first full year of service, Blue Shield averaged only 22 claims paid each day. The average is now 3,797 claims paid daily.

Currently, over one-third of the population of the state is protected by Blue Cross-Blue Shield.

In addition to the above payments, Blue Cross and Blue Shield serve as fiscal intermediaries for the Social Security Administration in administering the Medicare program in Indiana. During 1967, Blue Cross processed for payment 280,057 Medicare claims to the total amount of $66,936,974. Blue Shield processed for payment 443,591 Medicare bills totaling $19,195,813. ◄

W. C. Huddlestone
Public Relations Division

WANTED: Physicians Locations

GENERAL PRACTICE

J. Gomez, 22-07 58th Court, Spokane, Wash. 99203

Charles E. Opdyke, 61 Sunset Ave., Montclair, New Jersey

Forde R. Steele, 5535 Maryland Dr., Concord, Calif. 94521

SPECIALISTS

Hector R. Martinez, 10698 Carswell, El Paso, Texas 79908—*Internal Medicine*

Stanley B. Wolfe, 4047 Gateway Ct., Indianapolis, Ind. 46254—*Internal Medicine-Cardiology*

Anandkumar M. Koyani, 2157 Main St., Buffalo, N.Y., 14214—*Internal Medicine*

Matthew Menken, 560 Riverside Dr. (10C), New York, N.Y. 10027—*Neurology*

Eugene Kolbas, 1101 14th Ave., Altoona, Pa. 16601—*OB-GYN*

Expureio L. Tioseco, South Florida Baptist Hospital, Plant City, Fla. 33566—*OB-GYN*

Francesco L. Porcarelli, via Paolo Sarpi 11, Vicenza, Italy—*OB-GYN*

Kianoosh Radsan, 591 Harley Drive, Apt. #6, Columbus, Ohio 43202—*OB-GYN*

Aristides P. Papadopoulos, 1101 Willow Ridge Rd., Fort Worth, Texas 76103—*Orthopedics*

Robert J. Keim, Capt., MC, USAF Hospital Clark, Box 316, APO San Francisco 96274—*Otolaryngology*

David A. Stephens, 168 Harvard, Colorado Springs, Col. 80911—*Pediatrics*

Martin E. Harris, 1447 Richmond, NE, Albuquerque, New Mexico 87106—*Radiology*

Abraham Kaplan, 7521 Hawthorne, Raytown, Mo. 64138—*General and Thoracic Surgery*

John Richard Johnson, 2nd General Hospital, Landstuhl, Germany APO 09180—*Surgery*

Manuel N. Roco, Stevens Clinic Hospital, Welch, West Virginia 24801—*Surgery*

Vicente H. H. Po, 3140 Grand Court, Topeka, Kan. 66614—*Surgery*

Raul Tramontana, 13158 Forestdale Dr., Garfield Heights, Ohio 44125—*Surgery*

Leonard E. Snyder, 5311 B Gardner Ave., Fort Knox, Ky. 40121—*Surgery*

Thomas V. Thomas, 2501 Lindsay Ave., #4, Louisville, Ky. 40206—*Surgery*

Leopoldo I. Pena, 627 W. 4th St., Lexington, Ky.—*General Surgery*

George M. J. Shargel, 2145 Randall Lane, Bloomfield Hills, Mich. 48013—*Urology*

Stuart J. Schwartz, 13 Inglewood Drive, Hampton, Va. 23366—*Urology*

Aurel Radin, 1170 Adelaide St., Apt. 102, London, Ontario, Canada—*Urology* ◄

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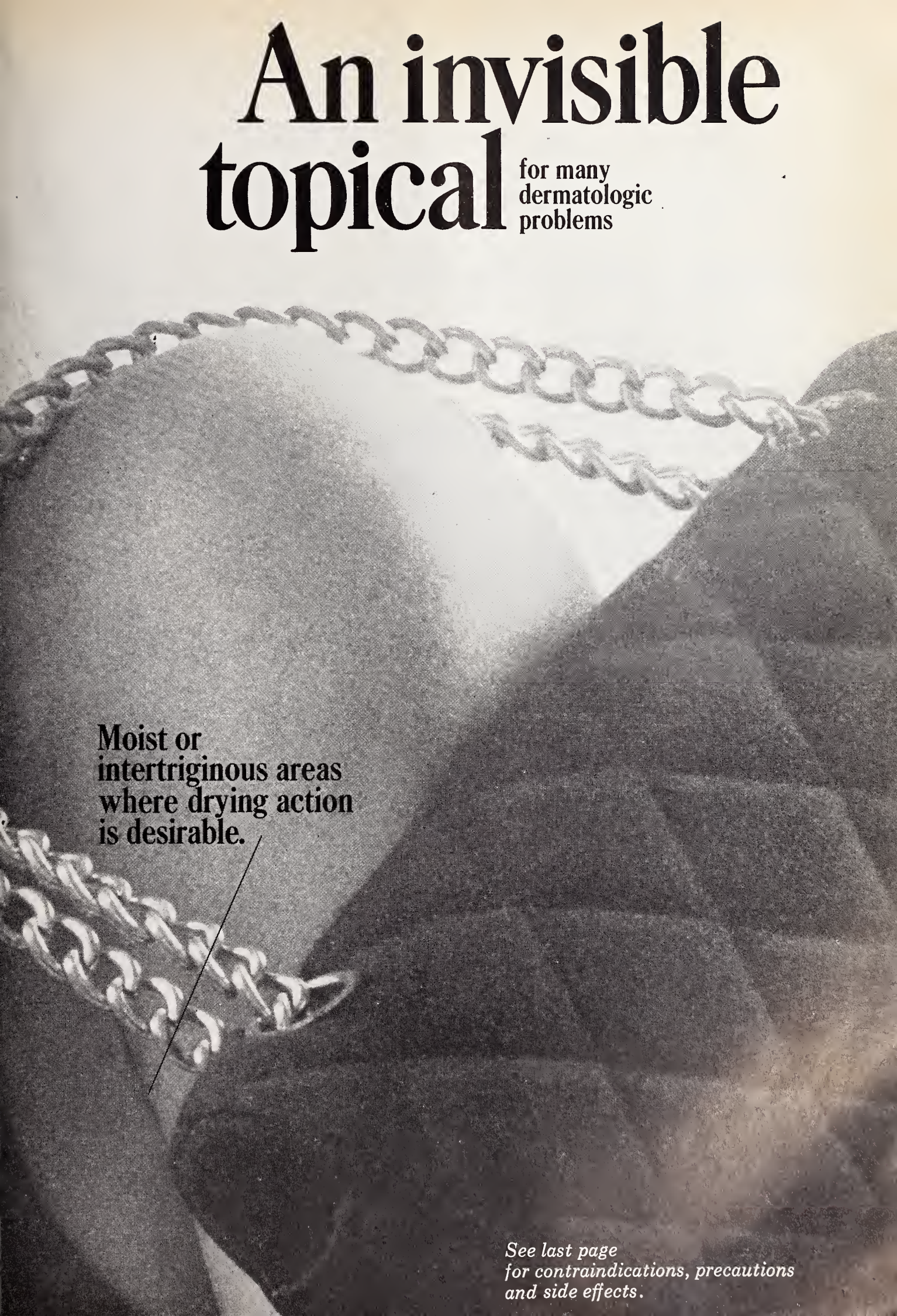
for many dermatologic problems



See last page for contraindications, precautions and side effects.

Structurally unique topical steroid in propylene glycol vehicle produces rapid response in many dermatoses.

Synalar Solution produces rapid antiinflammatory, antipruritic action through its unique topical corticosteroid, fluocinolone acetonide. The propylene glycol vehicle provides additional benefits for therapy at problem sites where it is difficult to achieve contact between the lesion and medication—or where creams or ointments may make the lesions worse. Synalar Solution has proved particularly valuable in the symptomatic treatment of seborrheic dermatitis of the scalp, nasolabial folds, eyebrows, ears, and in flexural folds such as the axillae, inframammary, umbilical and anocrural areas. It has also been reported to achieve excellent results in the adjunctive management of atopic dermatitis, contact dermatitis, neurodermatitis, nummular eczema, psoriasis, and sweat retention syndromes in these problem sites.

Penetrates the hairy sites.

In many areas of the body, hair gets in the way of treating the underlying dermatitis. The propylene glycol vehicle of Synalar Solution permits penetration and dispersion at sites where creams and ointments do not readily penetrate. May be applied without matting of hair.

Ideal for moist or intertriginous areas.

Propylene glycol is strongly hygroscopic and is especially useful where sweat retention is a problem. Its low surface tension permits easy spreadability in difficult-to-treat body areas. A number of studies have also shown that propylene glycol has inherent antimicrobial activity.

osmetically
:ceptable
›r exposed areas.

ıe propylene glycol vehicle Synalar Solution possesses ıny useful cosmetic properties. ear and greaseless, it is t sticky or messy, will not ıin clothing or skin. exposed areas of the body ıere cosmetic appeal is portant, Synalar Solution ›ws nothing but results.

:onomical—a little
›es a long way.

cause of the properties propylene glycol and the lligram potency of ocinolone acetonide, a small antity of Synalar Solution ›s a long way. Also, the escription price of a 20 cc. ıstic squeeze bottle of nalar Solution is surprisingly v. Thus, your patients obtain ›nomy with the proved cacy of a potent, truly vanced topical corticosteroid.

Contraindications: Tuberculous, fungal, and most viral lesions of the skin (including herpes simplex, vaccinia, and varicella). Not for ophthalmic use. Contraindicated in individuals with a history of hypersensitivity to any of the components.

Precautions: In some patients with dry lesions, the solution may increase dryness, scaling, or itching. Application to denuded or fissured areas, such as genital or perianal sites, may produce a burning or stinging sensation. If this persists and dermatitis does not improve, discontinue medication. Although propylene glycol has antiseptic activity, there should be careful initial evaluation and follow-up of infected sites. Incomplete response or exacerbation of lesions may be due to true infection, which requires susceptibility testing and appropriate therapy. On the other hand, saprophytic or low grade infections may clear spontaneously under the influence of Synalar Solution alone. Where severe local infection or systemic infection exists, the use of systemic antibiotics should be considered, based on susceptibility testing. While topical steroids have not been reported to have adverse effect on pregnancy, the safety of their use on pregnant females has not absolutely been established. Therefore, they should not be used extensively on pregnant patients, in large amounts, or for prolonged periods of time.

Side Effects: Side effects are not encountered ordinarily with topically applied corticosteroids. As with all drugs, however, a few patients may react unfavorably to Synalar under certain conditions.

Availability: Synalar (fluocinolone acetonide) Solution 0.01% in a propylene glycol vehicle with citric acid as preservative. 20 and 60 cc. plastic squeeze bottles. *Also available:* Synalar (fluocinolone acetonide) Cream 0.025% —5, 15 and 60 Gm. tubes and 425 Gm. jars. Cream 0.01% —15, 45 and 60 Gm. tubes and 120 Gm. jars. Ointment 0.025% —15 and 60 Gm. tubes. Neo-Synalar® (neomycin sulfate 0.5% [0.35% neomycin base], fluocinolone acetonide 0.025%) Cream —5, 15 and 60 Gm. tubes.

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Solution
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An invisible topical

. . . Auscultation is perhaps the most important of the routine methods of physical examination, the regularity and rhythm of the heart movements, integrity of heart valves, patency of intracardiac orifices, and tone of myocardial action being among the things which may be thus determined. Cardiac murmurs have not lost their importance, but they have ceased to be determining factors in a real cardiac diagnosis. Sufficient leakage of a valve to cause a very definite regurgitant murmur may exist for a greater part of a lifetime without markedly impairing the function of the organ. On the other hand, many a serious case of heart disease with impending danger shows neither valvular incompetency nor stenotic obstruction.

The brief attention given to auscultation in this discussion must not be construed as an actual measure of importance, but rather the limitations imposed by such a paper. Its value is very great, and no heart examination can be considered in any sense complete without getting all the information which the stethoscope can give, and which I can only vaguely indicate at this time. In estimating the clinical importance of murmurs detected by auscultation, we will not fail to study the effect of posture, of exercise, respiration, etc. We will find many murmurs to be merely the expression of myocardial weakness, the murmurs being developed by dilatation usually from exercise but from whatever cause and position, disappearing with returning tonicity . . . . G. W. McCaskey, M.D., Fort Wayne, *JISMA*, May, 1918.

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Average adult dosage: 2 tablets four times daily, given at least one hour before, or two hours after meals.
Contraindications: History of hypersensitivity to any component.
Warning: If renal impairment exists, even usual doses may lead to liver toxicity. Under such conditions, lower than usual doses are indicated and, if therapy is prolonged, serum level determinations may be advisable. Hypersensitive individuals may develop a photodynamic reaction to natural or artificial sunlight during use. Individuals with a history of photosensitivity reactions should avoid direct exposure while under treatment, which should be discontinued at first evidence of skin discomfort.
Precautions: Some individuals may experience drowsiness, anorexia, and slight gastric distress. If excessive drowsiness occurs, it may be necessary to increase the interval between doses. Persons on full dosage should not operate any vehicle. Use may result in overgrowth of nonsusceptible organisms. If infections appear during therapy, appropriate measures should be taken. Infections caused by beta-hemolytic streptococci should be treated for at least 10 full days to help prevent rheumatic fever or acute glomerulonephritis. Use of tetracycline during tooth development may cause discoloration of teeth.
Adverse Reactions: Gastrointestinal—anorexia, nausea, vomiting, diarrhea, stomatitis, glossitis, enterocolitis, pruritus ani. Skin—maculopapular and erythematous rashes (a case of exfoliative dermatitis has been reported); photosensitivity; onycholysis and discoloration of nails (rare). Kidney—rise in BUN, apparently dose related. Hypersensitivity reactions—urticaria, angioneurotic edema, anaphylaxis. In young infants, bulging fontanels following full therapeutic dosage has been reported. This has disappeared rapidly when drug was discontinued. Teeth—dental staining (yellow-brown) in children of mothers given tetracycline during the latter half of pregnancy and in children given the drug during the neonatal period, infancy, and early childhood. Enamel hypoplasia has been seen in a few children. Blood—anemia, thrombocytopenic purpura, neutropenia, eosinophilia. Liver—cholestasis (rare), usually at high dosage. If adverse reaction or idiosyncrasy occurs, discontinue medication and institute appropriate therapy.

Lederle

327-8

Annual Meeting Dates of Professional Medical and Allied Organizations

AMERICAN MEDICAL ASSOCIATION ANNUAL CONVENTION
Date June 16-20, 1968
Place San Francisco, Calif.

INDIANA ACADEMY OF GENERAL PRACTICE
Date April 15-17, 1969
Place Evansville

INDIANA STATE MEDICAL ASSOCIATION CONVENTION
Date October 15-18, 1968
Place Fort Wayne

NORTHERN INDIANA PSYCHIATRIC SOCIETY
Date Fourth Wednesday of every month, September through June
Place For location and program, inquire Beatty Memorial Hospital, Westville

INDIANA PSYCHIATRIC SOCIETY
Date Second Wednesday of the month October through May, excluding December
Place The Athenaeum, Indianapolis

INDIANA SOCIETY OF ANESTHESIOLOGISTS
Date May 25-26, 1968
Place Marott Hotel, Indianapolis

INDIANA STATE BOARD OF HEALTH

MONTHLY REPORT — March, 1968

Disease	Mar. 1968	Feb. 1968	Jan. 1968	Mar. 1967	Mar. 1966
Animal Bites	755	473	253	771	884
Chickenpox	667	611	476	584	871
Conjunctivitis	133	79	37	143	469
Diphtheria	0	0	0	0	0
Dysentery, Unspecified	120	86	62	83	52
Gonorrhea	579	377	391	495	492
Impetigo	99	94	64	98	150
Infectious Hepatitis	47	43	11	104	56
Infectious Mononucleosis	153	86	57	85	88
Influenza	1719	2805	9943	2049	3885
Measles					
Rubeola	150	79	88	97	1181
Rubella	103	67	20	150	410
Meningitis, Meningococcal	6	6	4	6	18
Meningitis, Other	9	2	3	9	3
Mumps	822	556	416	1134	671
Pertussis (whooping cough)	16	6	8	28	19
Pneumonia	308	345	246	510	669
Poliomyelitis	0	0	0	0	0
Streptococcal Infections	1185	897	675	1538	2571
Syphilis					
Primary & Secondary	22	27	19	17	4
All Other Syphilis	142	81	50	105	105
Tinea Capitis	17	19	12	8	55
Tuberculosis (Active)	98	81	40	128	128

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Adverse Reactions: Drowsiness; dry mouth; nasal congestion; constipation; amenorrhea; miosis; mild fever; weight gain; hypotensive effects, sometimes severe with I.M. administration; epinephrine effects may be reversed; dermatological reactions; parkinsonism-like symptoms on high dosages (in rare instances, may persist); lactation and moderate breast engorgement (in females on high dosages); and less frequently, cholestatic jaundice (use cautiously in patients with liver disease). Adverse reactions occurring rarely, include: mydriasis; agranulocytosis; skin pigmentation; epithelial keratopathy; lenticular and corneal deposits (after prolonged substantial doses).

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Medicine At Law

DECISIONS AND OPINIONS

Highlights of recent court actions pertaining to health and medicine from *The Citation* prepared by the Law Division of AMA.

Nonsupport of Artificial-Insemination Child is not Crime—The conviction of an accused for having failed to support a child, born to his ex-wife during their marriage as the result of artificial insemination to which he had consented, was reversed by a California intermediate appellate court. The accused was not the child's father within the meaning of the statute under which he was convicted.

The accused had given his written consent to a physician's artificial insemination of his wife. When the child was born, the accused was named as the father in the birth certificate on the basis of information furnished by the wife. The accused testified that he had not known the contents of the birth certificate. For four years there was a normal family relationship. The accused represented to friends that he was the child's father and treated him as his son. When the accused and his wife agreed to the divorce, the wife said she wanted no support for the child. He has provided no support for the child since the divorce.

The statute under which the accused was convicted makes it a crime for the father of a legitimate or illegitimate child to fail to provide support for the child. The prosecution was unable to sustain its burden of proving that the accused was the child's father, because it was clear from the facts that he was not.

The adoption statute was not applicable because there was no written agreement by the accused to treat the child as his for all purposes. Nor was the statute providing for the adoption of an illegitimate child through acknowledgment applicable. That statute applies only when the party charged is the child's natural father. The accused's status as the child's father was not established by the statute providing for a conclusive presumption of legitimacy. The presumption is one of legitimacy, not fatherhood. Further, there was no evidence that the accused and his wife were cohabiting when the child was conceived.

The accused's conviction was based on a theory of estoppel. Estoppel has only in rare instances been applied to a criminal case. In no criminal case has estoppel been applied, as it was here, to establish the very essence of the offense charged. The prosecution could not rely on estoppel to prove that the accused was the child's father, since that was the essential ingredient of the offense with which he was charged.—*People of the State of California v. Sorensen*, 62 Cal. Rptr. 462 (Cal., Sept. 29, 1967).

New Trial in Suit for Treatment of Fracture—In a patient's suit for damages against a physician for injuries caused by his allegedly negligent treatment of the patient's fractured left arm, a trial court erred in refusing to submit to the jury various specifications of negligence alleged in the complaint, the Indiana Supreme Court ruled. The judgment entered on the jury verdict for the physician was reversed and the case remanded for a new trial.

The patient had fractured the radius and ulna above the wrist. The physician reduced the fracture by placing a metal plate on each broken bone, after which he used sutures and placed the forearm in an aluminum splint extending from the wrist to the elbow. When the physician removed the splint eight weeks later, the arm was left without any immobilization whatever. The physician advised exercise. X-rays taken by the physician after six months of treatment disclosed no bone union. The patient consulted another physician two months later. X-rays he took disclosed no bone union, but did show a fibrous union and a deterioration of a small portion of the ulna. The second physician recommended grafting and use of a full-arm plaster cast to provide complete immobility.

The trial court refused to submit to the jury several specifications of negligence on the physician's part which the patient had alleged in his complaint. The evidence with respect to those specifications of negligence was conflicting. The appellate court reversed the trial court's ruling, holding that the patient's evidence as to the specifications was

sufficient to establish a prima facie case with respect thereto and they should therefore have been submitted to the jury.—*Shirey v. Schlemmer*, 230 N.E.2d 534 (Ind., Oct. 31, 1967).

Wrongful Death Action Allowed for Prenatal Injuries—The parents of a child who was born alive but died two days later, allegedly as the result of prenatal injuries sustained when her mother was involved in an automobile accident, could maintain an action under the Wrongful Death Statute against the allegedly negligent driver. A trial court's dismissal of the suit for failure to state a cause of action was reversed and the case remanded for trial by the Texas Supreme Court.

A right of action exists under the Wrongful Death Statute only where the injured party could have maintained an action for damages if death had not ensued. The Supreme Court overruled its prior decisions and adopted the modern view that a child who is born alive has a cause of action for prenatal injuries. Decision was reserved on the questions of whether a cause of action would exist if the fetus were not viable when the injuries were sustained or if the child had not been born alive. —*Leal v. C.C. Pitts Sand and Gravel, Inc.*, 419 S.W.2d 820 (Tex., Oct. 4, 1967; rehearing denied, Nov. 22, 1967).

Federal Trade Commission Order on Geritol Advertising—The portion of the Federal Trade Commission's order requiring the manufacturer of Geritol to state affirmatively in its advertisements that the majority of those experiencing symptoms of tiredness do not have them because of vitamin or iron deficiency was proper and justified, the U.S. Court of Appeals for the Sixth Circuit ruled. The court denied enforcement of that portion of the order which, in effect, removed the preparation from the proprietary drug area to the prescription drug area.

Geritol is a preparation containing iron and various vitamins. In its advertisements the manufacturer states that symptoms of tiredness, loss of strength, and nervousness or irritability may be due to iron-deficiency anemia and recommends the preparation as a remedy. There was expert medical testimony that: those symptoms are universal and nonspecific; only a small proportion of the population suffers from iron-deficiency anemia; a small minority of the persons exhibiting the symptoms do so because of iron-deficiency anemia. The advertisements do not affirmatively represent that the majority of people who are tired and run-down are so because of iron-deficiency anemia and that the preparation will be an effective cure. However, the advertisements are false and misleading in that the overall impression that they create in the general public is that the preparation can cure. Therefore, the portion of the commission's order requiring the manufacturer to affirmatively state that the majority of those experiencing the symptoms did not do so because of iron-deficiency anemia or a deficiency of the vitamins contained in the preparation was proper.

The commission's order also prohibited the manufacturer from representing that iron-deficiency anemia could be self-diagnosed or determined without a medical test. In effect, this portion of the order removed the preparation from the proprietary drug area to the prescription drug area. There is no Congressional policy against self-medication on a trial and error basis where the consumer is fully informed and the product is safe, such as the preparation involved here is conceded to be. Therefore, that portion of the order was not entitled to enforcement.—*J. B. Williams Company v. Federal Trade Commission*, 381 F.2d 884 (C.A. 6, Aug. 11, 1967).

Government not Bound by Own Medicare Booklet—A claim by a Medicare beneficiary for expenses connected with his emergency hospitalization following a heart attack has been denied by the Social Security Administration on the ground that the hospital was not a Medicare participant. A handbook of Medicare information, signed by the Social Security Commissioner, states that "in an emergency, if you are taken to a hospital that is not participating, your hospital insurance will pay for the covered services you receive." In the order rejecting the claim, it was stated that the booklet was incorrect, since nonparticipating hospitals must meet certain requirements to qualify for payment even under the emergency clause, and the government was not bound by the mistake because the Congress had not delegated to the Administrator, or anyone else, the authority to change the statute. An investigation is now under way to determine whether the hospital actually does meet the requirements for payment under the emergency clause. (News Release, Ruidoso, New Mexico, Nov. 1, 1967).

Commitment to Mental Hospital Upheld—A federal trial court granted the motions for summary judgment of a policeman, three physicians, and the state mental health commissioner in a suit against them, under the Civil Rights Act, for damages caused by their having committed a man to a mental hospital.

The man had agreed to accompany his brother and the policeman to the police station and to see a physician there. A private physician was called to the station. After observing the man, the physician signed a form requesting that he be admitted to a state mental hospital. The man was admitted on the basis of that request. While he was at the hospital, the man was observed by the other two physicians, both of whom were engaged in private prac-

tice. On the basis of their testimony as to the findings, a court ordered the man's commitment to a state mental hospital.

The man had no cause of action against the three physicians. They did not act "under color of law," but as private physicians. Nor did the man have a cause of action against the state mental health commissioner. He had nothing to do with the man's commitment. His only connection with the case was that he happened to have the duty of administering the laws relating to state mental hospitals.—*Bane v. Spencer*, 273 F.Supp. 820 (D.C., Mass., Sept. 8, 1967).

Adequate Tax Records no Bar to Use of Net Worth Method—The Internal Revenue Service may use the net worth method in computing the tax deficiencies of a physician even when his books and records are sufficiently complete and adequate for the computation of his income, the Tax Court has ruled.

The records of the physician, who specialized in obstetrics and gynecology, consisted of daily appointment sheets, daily logs, receipt books, ledgers, O.B. charts, and bank records. For the years 1949-1958, he reported only those professional receipts shown in his daily logs and reported none of the professional receipts shown on his O.B. charts. Although the O.B. charts were sufficiently complete and accurate to permit computation of his income, the IRS computed his tax deficiencies by the net worth method.

The court said that there was no rule prohibiting the use of the net worth method merely because the taxpayer's books utilized a method of accounting that was capable of accurately reflecting income. Further, the net worth method may be used to test the accuracy and adequacy of a taxpayer's books and records, regardless of whether they are, on their face, adequate or inadequate.

The physician's unreported income for 1949-1958 was in excess of $90,000. Since at least part of the deficiency for each of the years involved was due to fraud with intent to evade tax, none of the deficiencies for any of those years was barred by the statute of limitations.—*Bushnell v. Commissioner*, 49 T.C. No. 30 (Dec. 29, 1967).

Release of Dangerous Mental Patient Denied—A patient's petition for release from a mental hospital was properly denied on the ground that he was dangerous, the U.S. Court of Appeals for the District of Columbia ruled. The patient had been committed to the hospital after being found not guilty by reason of insanity on a charge of second degree murder. The evidence supported the trial court's finding that the patient would be dangerous to himself or others if released.

A hospital psychiatrist who had examined, observed, and treated the patient testified that he was suffering from schizophrenic reaction, paranoid type, for which he was administered 100 milligrams of Thorazine twice a day. He testified that, on one occasion when the drug was discontinued, the patient became extremely agitated and had to be placed under physical restraint. He said that the patient expressed delusions of persecution when he was not getting the drug but did not do so when he was getting the drug. The psychiatrist said that if the patient stopped his medication and turned to alcohol, as he would be likely to do in view of his long history of use of alcohol, he would again become dangerous. The second degree murder charge had arisen out of the patient's having pushed his wife off a balcony because she had awakened him after he had been drinking.

The detention in a mental hospital of a person who has been found not guilty by reason of insanity on a criminal charge is not unconstitutional. The purpose of the detention is not punitive. Its purpose is to protect the public and the subject and to provide a place and a procedure to treat and, if possible, to rehabilitate the subject. A patient committed under such circumstances has the burden of proving his eligibility for release. It is not enough that the patient is "sane" in the opinion of one or more psychiatrists. He must be free from any abnormal mental condition that would make him dangerous to himself or the community.

It might be true that Thorazine could be administered as well outside the hospital as inside it. However, it was clear from the record that the patient was not being detained solely because he was taking the drug. He was being detained for treatment and rehabilitation consisting, in part, of taking of the drug, but also including group therapy, regular observations by hospital psychiatrists and nurses, and custodial protection to keep him from the use of alcohol.—*Collins v. Cameron*, 377 F.2d 945 (C.A., D. of C., April 21, 1967).

General Practitioner Qualified as Expert on Insanity—An accused who had pleaded not guilty by reason of insanity to a charge of robbery by force was not deprived of his right to the effective assistance of counsel by his attorney's consent to the appointment of two general practitioners to examine him with respect to his sanity, the Wisconsin Supreme Court ruled. The two physicians testified to the opinion that he was sane at the time of committing the offense.

The accused contended that his attorney should not have consented to the appointment of the examining physicians because they were not specialists in psychiatry. There were no psychiatrists in the county where the trial was held. The naming of the two general practitioners was the

result of considerable discussion by the trial court, the district attorney, and the accused's attorney on the question of who was qualified to make the examination.

Although it might be desirable to appoint only psychiatrists to conduct mental examinations when the defense of insanity is raised, neither the statutes nor the constitutional guarantees of due process or equal protection of the law require that this be done. A regular practicing physician, at least if he has made some study of the subject of insanity or had some experience with mental cases, is deemed qualified as an expert.

The record showed that one of the physicians named had treated patients for mental disorders and had, while serving as an Army medical officer, been in charge of a 350-bed psychiatric unit for about a year. He had examined hundreds of persons suspected of being mentally ill or feeble-minded and had frequently been appointed by courts to examine persons with respect to mental disease and disorder. The other physician's qualifications were not set forth in the record, apparently because they were well known to the trial court, the district attorney, and the accused's attorney.—*Nelson v. State of Wisconsin*, 151 N.W.2d 694 (Wis., June 30, 1967).

Transplant Donor's Suit Dismissed—A mother who donated one of her kidneys to her adult son was held to have no cause of action against three physicians whose alleged negligence in removing the son's kidneys made the transplant operation necessary. The mother's suit was dismissed by a New York trial court. A prior suit by the son against the three physicians for the allegedly negligent removal of both of his kidneys was settled for "a very substantial sum," reported to be $280,000.

For several weeks after the son's kidneys were removed, his life was preserved by use of an artificial kidney. When it became apparent that the son could not live without human kidney tissue, the mother volunteered to donate one of her kidneys. The transplant, performed by physicians other than those involved in the suit, was successful.

To hold that the physicians' admitted "wrong" as to the son carried over and constituted a "wrong" as to the mother would require the invention of a "brand new cause of action," the court said. The mother's act in donating one of her kidneys to save her son's life did not extend or reactivate the physicians' negligence toward the son, since the mother's conduct was a premeditated, independent, and intervening act.

Nor was the "rescue doctrine" applicable—the doctrine under which a negligent person may be liable for injuries suffered by one who seeks to rescue another person from the consequences of the negligence. The doctrine applies, the court said, only when the rescuer acts without considering the danger to himself. In this case, the mother's act was intentional, voluntary, and with full knowledge of the consequences.

Modern medicine seems on the threshold of successfully transferring many organs from one human body to another, and, as a result, the issue involved here may frequently find its way into the courts in the future, the court said. If public policy requires that a donor be permitted to maintain a cause of action under the circumstances involved here, it must be the result of legislative, not judicial, action.—*Sirianni v. Anna*, 285 N.Y.S.2d 709 (N.Y., Dec. 21, 1967).

No Negligence in Burn Treatment—A physician was entitled to a directed verdict in a patient's suit alleging negligent treatment of his severely burned leg, the Kentucky Court of Appeals ruled. The evidence presented by the patient was not sufficient to create a jury issue as to negligence on the physician's part.

The physician's treatment of the patient's burned right leg involved transplanting some skin from his left leg. Both legs became infected and did not heal for a long time.

The patient presented no expert medical testimony that the physician failed in any respect to meet the applicable standards of care. In fact, the patient's only expert witness testified that the physician conformed in every respect to the applicable standards of knowledge, skill, diligence, and care. The general knowledge of laymen is not sufficient to enable them to "recognize" that, in treating severe burns and making transplants, infection and slow healing are the results of negligence.

No inference of negligence could be drawn from the fact that the left leg as well as the right leg became infected. The presence of an infection after an operation or in an area under treatment is not prima facie evidence of negligence.—*Harmon v. Rust*, 420 S.W.2d 563 (Ky., Nov. 3, 1967).

Hospital Liable in Urea Injections; Physician Not Liable—In a suit against a hospital and a physician by a patient who sustained injuries to her left calf from the injection of urea solutions in connection with brain tumor tests, an Illinois trial court jury returned a verdict against the hospital and awarded damages of $21,000. The jury returned a verdict for the physician.

The tests included boring holes in the patient's skull, through which air was pumped. The urea solutions were injected in the calf to offset brain swelling. Because an excess amount of the solution was injected, the tissues became necrotic and sloughing developed. Despite two

reconstructive operations, the patient now has a 4-to-5-inch hole in the contour of her calf.—*Zurales v. Chicago Wesley Memorial Hospital*, Cir. Ct., Cook Co., Docket No. 62C-3970 (Ill., Dec. 15, 1967).

Hospital's Discriminatory Policy no Bar to Tax Exemption—A nonprofit hospital was entitled to an order exempting it from real and personal property taxation and cancelling a tax assessment that had been levied against it, the Florida Supreme Court ruled. The hospital met all of the statutory requirements for tax exemption. The assessor had denied the exemption and assessed the tax on the ground that the hospital's admission policies were racially discriminatory. The assessor exceeded his power in imposing a condition for tax exemption in addition to those provided by the statute. His action was therefore invalid.—*Maxwell v. Good Samaritan Hospital Association*, 204 So. 2d 519 (Fla., Nov. 22, 1967; rehearing denied, Dec. 19, 1967).

Cardiac Patient's Death Held Accidental—A beneficiary was entitled to recover double indemnity benefits under the accidental death provision of a life insurance policy. The death of the insured, who had a rheumatic heart, was caused by a cut made in his heart in the performance of a tap of his pericardial sac, and was death by accidental means, the New York Court of Appeals ruled.

The autopsy disclosed a two-centimeter cut or tear in the heart's right ventricle, but no myocardial abnormality at or near the cut. The death certificate gave as the immediate cause of death "hemorrhagic cardiac tamponade" which was "due to traumatic myocardial laceration and pericardiocentesis." The physician who performed the tap testified that the insured would have died if it had not been performed. He stated the opinion that, although the cut might have been a contributing cause of death, the major cause was rheumatic heart disease and cardiac tamponade. The beneficiary presented expert medical testimony that the cut in the ventricle was such that it would have caused the death of a person who was in normal health.—*Hoyt v. John Hancock Mutual Life Insurance Company*, 281 N.Y.S. 2d 836 (N.Y., June 1, 1967).

Drug Manufacturer Not Liable for Intestinal Lesion—A trial court properly set aside the jury's verdict in favor of a patient in her suit for damages against the manufacturer of HydroDIURIL-Ka-50 for injuries resulting from taking the drug. The evidence was insufficient to raise a jury issue as to whether the manufacturer was negligent in failing to make adequate tests before putting the drug on the market, the U.S. Court of Appeals for the Eighth Circuit ruled.

The patient developed abdominal pains after taking the drug for several months. An operation was performed, disclosing a nonspecific lesion in the small intestine. The lesion was removed. The evidence was sufficient to support a finding that there was a causal connection between the use of the drug and the lesion.

Ka-50 is a combination of potassium chloride in enteric coated form and hydrochlorothiazide (HydroDIURIL). The manufacturer had made extensive animal and human tests before placing HydroDIURIL on the market. Before Ka-50 was placed on the market, separate tablets of HydroDIURIL and potassium chloride were given together. The manufacturer made tests with Ka-50 on 136 humans, none of whom developed a lesion. The drug was placed on the market in 1960.

Two articles published in 1964 were the first indication that there was a causal connection between potassium chloride and lesions in the small intestine. The manufacturer then conducted a study of users of potassium chloride and conducted tests on animals. The causal connection was confirmed. The manufacturer then sent an appropriate warning statement to all physicians.

The patient contended that the manufacturer was negligent in not having made more extensive tests before putting Ka-50 on the market. The manufacturer had the duty to exercise reasonable care not to expose potential consumers to an unreasonable risk of harm from its products. The extent of the manufacturer's duty to additionally test its product's propensities is dependent upon the foreseeable risk of harm to potential users in light of current scientific or medical knowledge and discoveries. When Ka-50 was put on the market it was not a new, untried drug, in view of the fact that its components had for some time been administered as two separate pills. In view of the long and medically approved use of potassium chloride, there was no occasion for the manufacturer to conduct a more extensive research program before it marketed the one-pill form.—*O'Hare v. Merck & Company*, 381 F.2d 286 (C.A. 8, July 19, 1967; rehearing denied, Aug. 29, 1967). ◄

The Arthritis Foundation salutes the thousands of dedicated physicians who volunteer their services in the nation's fight against crippling arthritis.

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The Arthritis Foundation looks forward to rapid growth with increasing opportunity for physicians to participate in the arthritis movement. For further information about The Arthritis Foundation and its programs write to the Foundation chapter in your community or to the Medical Department, Box 2525, New York, N.Y. 10001.

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ABSTRACTS

BOOK REVIEWS

LECTURES TO RELATIVES OF FORMER PATIENTS

Abraham Low, M.D. The Christopher Publishing House, Boston. 1967: 229 pp., $5.00.

Dr. Low founded a psychiatric self-help clinic called Recovery, Inc., at the University of Illinois Medical School. This book consists of the lectures given there to relatives of patients recently discharged from mental institutions.

It is recognized that the patient's families are often over-solicitous, protective and even domineering, all of which in words or actions tend to give the patient the idea he has not recovered or is likely to have another mental breakdown. The author illustrates his points by presenting cases.

The text is in simple language and can be easily understood by any physician or layman, and presents much common-sense information.

DAVID A. BICKEL, M.D.
South Bend

CLINICAL HEMATOLOGY

Maxwell M. Wintrobe, M.D., sixth edition, Lea and Febiger, Philadelphia, 1967; 1287 pp., many illustrations, bibliographies, index.

The first five editions of this tome (weight 6½ lbs.) had 24 printings in English. There also have been two Spanish editions, one Italian edition and one Greek edition—full circle back to Hippocrates old bailiwick. To this reviewer, the reason for this is that the admirable goal announced in the preface has been pursued consistently and indefatigably. Over the years, Dr. Wintrobe has lost none of his ardor, either for hematology or for imparting his learning and methods to others.

In his preface he says ". . .I have had in mind the beginning student, the discerning technician, the advanced postgraduate, the practicing physician, the teacher and even the biochemist and the sophisticated hematologist." A thorough reading of just one chapter will show that he did have all seven of these in mind, and this holds throughout the book. There are 22 chapters, Appendix A and Appendix B. Each chapter considers a complete subject such as origin and development of the cells of the blood, the erythrocyte (two chapters), the leukocytes, blood platelets and coagulation, the blood as a whole, blood groups and transfusion, examination of the blood, etc., yet with frequent cross-references to other chapters and to illustrations.

This book contains an amazing set of bibliographies — one at the end of each chapter — and in scanning these it is interesting to see how they have been kept up-to-date, many having been added since 1961, the fifth edition. These 22 bibliographies added together show 6,152 entries, not counting a fair number interpolated by the use of lower case letters. The index of 29 pages seems adequate, but if one has any difficulty there, he can find what he wants in the admirable table of contents. The printing of text, tables, and illustrations is excellent and easy on the eyes.

Dr. Wintrobe writes vigorous, clear English in a straightforward style, which is concise. This book, while thick, is not padded with flowery language. It is difficult to see how a textbook and reference work could be better made to cover so much ground in such a fashion as to be suitable to all seven of the scientific personnel mentioned in the second paragraph of this review. The reviewer feels he could recommend it highly, also, to anyone proposing to "program" a computer on hematology.

A. W. CAVINS, M.D.
Terre Haute

PATIENTS, DOCTORS AND FAMILIES

Faye C. Lewis, M.D., Doubleday & Co., Inc., New York, 1968; 240 pp., $4.95.

Reading this small book is a distinct pleasure. It is a collection of case histories and anecdotes gleaned from the extensive practice of a lady physician in Webster City, Iowa. Some of these incidents are humorous, some sad—with comments that are wise and compassionate.

The author is a family doctor, a wife and mother who is sensitive and observing. She was the first woman to receive a medical degree from Washington University. This short work gives an almost complete view of human nature and certainly is an interesting story of a general practitioner's life in a small town and agricultural community. It is well written and easily readable. Anyone, particularly a physician, will enjoy this book and derive some worthwhile information from it.

DAVID A. BICKEL, M.D.
South Bend

ANTILYMPHOCYTIC SERUM

Ciba Foundation Study Group #29, edited by G. E. W. Wolstenholme and Maeve O'Connor, Little, Brown & Co., Boston, Mass., 1967; 165 pages with numerous figures; $3.50.

This smallish volume is a fitting companion to the symposium on the thymus. It comes at an especially interesting time as the

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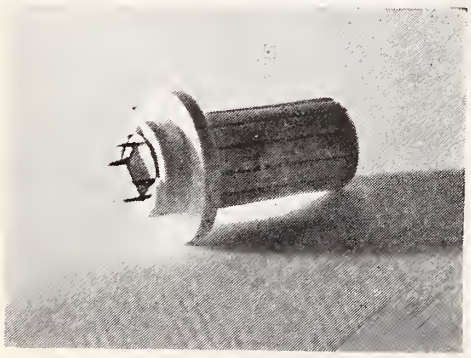

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attention of the entire world is being focused so dramatically on organ transplantations and the subject of "self" and "unself": tissue rejection by the host, "runt" disease, etc..

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A most brief, yet authoritative discussion of the state of our present knowledge on this emerging frontier of medicine is the reader's reward. The printing and binding are up to their usual standards. All in all, this is a truly outstanding little monograph.

ARNOLD LIEBERMAN, M.D.
New York, N.Y.

Abstracts From Various Literature, Prepared by AMA

CONGENITAL CARDIAC DISEASE ASSOCIATED WITH POLYSPLENIA: DEVELOPMENTAL COMPLEX OF BILATERAL "LEFT-SIDEDNESS"

J. H. Moller et al. (Miller Hospital, 125 W. College, St. Paul)
Circulation 36:789-800, (Nov.), 1967.

Association of congenital cardiac disease with asplenia has been termed "bilateral right-sidedness" or dextroisomerism, since the spleen is absent, the liver is symmetrical, and each lung has three lobes and an epi-arterial bronchus. In a study of pathologic material from 12 patients with congenital cardiac disease associated with multiple spleens (as contrasted to accessory spleen) a definite tendency for the symmetrical development of organs was found, but with a tendency to bilateral left-sidedness or levoisomerism. The abnormalities assumed one of three forms: (1) absence of a normal right-sided structure, (2) bilateral organs, each with the structure of a left-sided organ, or (3) excessive tissue of a left-sided organ. Thus, in polysplenia, there is a tendency for: (1) absence of the hepatic segment of the inferior vena cava and absence of the gallbladder, (2) each lung with two lobes and hyparterial bronchi, and (3) multiple spleens. Other non-cardiac abnormalities are partial or complete abdominal heterotaxia and partial malrotation of the bowel. The cardiac malformations included dextrocardia, bilateral superior venae cavae, anomalous pulmonary venous connection with malposition of the atrial septum, and defects in the atrial septum and in the ventricular septum. The cardiac and visceral malformations of polysplenia resemble those in asplenia in showing a disturbance in the development of normal body asymmetry. The developmental complex of multiple spleens is closely related to the asplenic syndrome, the important difference being left-sided symmetry rather than right-sided symmetry.

INTRAUTERINE TRANSFUSION— A SECOND AND CRITICAL LOOK

E. H. Bishop, L. L. Weber and S. L. Israel (Pennsylvania Hospital, Philadelphia)
Amer. J. Obstet. Gynec. 99:615-626, (Nov. 1), 1967.

An analysis of a 2½-year experience of 91 intrauterine transfusions given to 44 fetuses shows that until the presently promising immunologic methods are available to prevent Rh isoim-

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munization, fetal transfusion has a tenuous place in highly selected, severely affected individuals. Selections should be based upon both a disastrous past obstetric history and the repetitive findings of amniotic fluid with threatening levels of optical density. Transfusion is not warranted for the mildly affected fetus, nor is it worth the maternal risk to give transfusions to an already doomed hydropic fetus. Following intrauterine transfusions, 14 of the fetuses died, eight of the 30 liveborn infants died, and the remaining 22 survived the neonatal period—a total salvage of 50%. No infant survived whenever the original optical density had been over 0.600 and only twice out of nine attempts did the fetal condition permit pursuit of the entire planned course of therapy when the initial optical density had been over 0.400.

SPANDEX DERMATITIS

R. D. Carr (320 W. 10th Ave., Columbus, Ohio)
Arch. Derm. 96:642-645, (Dec.), 1967.

Nine women with contact dermatitis due to spandex in their brassieres are reported. One woman also developed dermatitis from contact with spandex in her girdle. In all cases the spandex was of the Lycra trade brand, which has been reported not to cause spandex dermatitis. None of the patients had a positive patch test reaction to the rubber accelerator, mercaptobenzothiazole, previously reported to give positive reactions in patients with spandex sensitivity. The substance in spandex causing hypersensitivity is unknown.

BLOOD LEAD OF PERSONS LIVING NEAR FREEWAYS

H. V. Thomas et al. (California State Department of Public Health, Berkeley)
Arch. Environ. Health 15:695-702, (Dec.), 1967.

In a study made to determine whether persons living near freeways in Los Angeles County have increased levels of lead in blood, average blood lead levels were found to be higher in 50 adults residing within 250 feet of a freeway for at least three years. However, these blood lead levels were similar to other Los Angeles populations and lower than those of other urban populations. The atmospheric lead concentration is lower near the ocean than in the center of the city. It is higher in heavy freeway traffic than in downtown areas. At a distance of 150 feet away from freeway traffic lanes, the concentration of lead in the atmosphere is about the same as at monitoring stations in the central area. A specific effect of residential proximity (25 to 250 feet) to a freeway has not been demonstrated.

MORTALITY AND MORBIDITY DURING A PERIOD OF HIGH LEVELS OF AIR POLLUTION

M. Glasser, L. Greenburg (1300 Morris Park Ave., New York), and F. Field
Arch. Environ. Health 15:684-694, (Dec.), 1967.

With the onset of high levels of air pollution, daily deaths due to all causes immediately rose to higher than expected levels, and remained there for seven consecutive days. There were 24 more deaths per day than during the control periods; in all there was a total of 168 excess deaths. The excess number of deaths per day increased with increasing age. Significant increases in the number of deaths were observed on one or more days for arteriosclerotic heart disease, vascular lesions of the central nervous system, malignant neoplasms of the respiratory system, the category "other diseases of the circulatory system," and the miscellaneous group "all other causes." The timing and duration of

the observed increases varied by cause of death. The number of emergency clinic visits for bronchitis and asthma at seven large New York hospitals was examined. There was a rise in the number of such visits on the third day of the episode, among patents age 45 and over, at three of the seven hospitals investigated. The weather was unseasonably warm during the air pollution episode but the rise in temperature alone could not account for the observed increase in mortality.

INFLUENCE OF NEOMYCIN SPRAYS ON THE SPREAD OF RESISTANT STAPHYLOCOCCI

V. G. Alder (Bristol Royal Hospital, Bristol, England) and W. A. Gillespie

Lancet 2:1062-1063, (Nov. 18), 1967.

Outbreaks of infection were caused by neomycin-resistant staphylococci in a surgical ward in which patients' noses and wounds were treated with sprays containing neomycin and its analogues and in which some patients received oral neomycin. The outbreaks were initiated by the use of the sprays. Nasal treatment with a cream of neomycin and chlorhexidine did not provoke cross infection.

SUCCESSFUL TREATMENT OF A CASE OF WATERHOUSE-FRIDERICHSEN SYNDROME WITH HEPARIN

O. Tonz (Kinderklinik Kantonsspital, Lucerne, Switzerland)

Schweiz Med. Wschr. 97:1611-1614, (Dec. 2), 1967.

A two-year-old boy with fulminating meningococcal septicemia (Waterhouse-Friderichsen syndrome) was admitted to the hospital at a very early stage of the disease. Anticoagulant therapy was begun immediately after the outbreak of skin hemorrhages. Treatment with heparin proved successful, and a few hours later general improvement was obvious. After four weeks the patient was discharged from the hospital in good condition.

SUDDEN UNEXPECTED DEATH FROM NATURAL CAUSES IN YOUNG ADULTS

J. L. Luke and M. Helpern (520 First Ave., New York)

Arch. Path. 85:10-17, (Jan.), 1968.

Autopsies in 275 cases of sudden and unexpected death from natural causes in individuals between the ages of 20 to 45 years are reviewed. Asymptomatic coronary artery disease and untreated infectious diseases of all types comprise a significant percentage of these cases. The potentiating direct and indirect effects of acute and chronic alcoholism on natural disease processes of all types cannot be overemphasized and constitute a very real public health problem.

RADIATION HAZARD IN RADIOGRAPHY OF FEMALE ABDOMEN AND PELVIS

D. Reekie, M. Davison (Regional Physics Department, Glasgow, Scotland), and J. K. Davidson

Brit. J. Radiol. 40:849-854, (Nov.), 1967.

All radiological examination of the lower abdomen and pelvis in women of reproductive age should be limited where possible to the ten-day interval following the onset of menstruation. The abdominal dose should not exceed 1.3 rads in any 13-week period and the dose to the fetus should not exceed 1 rad during the known period of pregnancy. The somatic hazard to the fetus from 1 rad can lead to a risk of one in 5,000 of subsequently developing cancer, or approximately doubles the natural risk of dying from some form of cancer at an early age. The genetic hazard is much less, but 1 rad will increase the natural mutation

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by 3%. The actual radiation exposure given to patients in a large general hospital for various radiographic investigations of the abdomen were measured. The gonad and fetal doses were obtained by calculation of the relevant depth doses taking the most probable position of the ovaries before and during pregnancy and of the fetus at term. The results show that in early pregnaney the embryo may receive approximately 1 rad in lateral radiographs of the lumbar spine and of the lumbosacral junction, in renal arteriography and similar examinations requiring multiple exposures, and in all screening examinations of the pelvis and lower abdomen. Even with a repeat radiograph, none of the other projections seem likely to lead to a serious hazard.

ADVERSE DRUG REACTIONS DURING HOSPITALIZATION

R. I. Ogilvie and J. Ruedy (Montreal General Hospital, Montreal)

Canad. Med. Assoc. J. 97:1445-1449, (Dec. 9), 1967.

For a 12-month period, all patients admitted to a public medical service were surveyed for adverse drug reactions occurring during their hospital stay. Three methods of surveillance were used. Eighteen percent of 731 patients suffered unintended or undesired consequences of drug therapy. Most reactions required specific treatment, prolonged hospitalization, were life-threatening or fatal. One fourth of 67 deaths on the service was due to adverse drug reactions. Of the 193 reactions, 60% were caused by digitalis, quinidine, antimicrobials, insulin, and diuretics. Most events (81%) were due to the pharmacological action of the drug, overdosage, side effects or cytotoxic effects. These reactions were usually dose-rated and predictable. Fewer events (19%) were due to the interaction of the drug with special predisposing factors—constitutionally induced, disease induced, or envioron mentally induced reactions.

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STAPHYLOCOCCAL CARRIER STATE IN RHEUMATIC SUBJECTS RECEIVING ORAL PENICILLIN G PROPHYLAXIS

S. Friedman et al. (1740 Bainbridge St., Philadelphia)

Amer. J. Dis. Child. 115:25-28, (Jan.), 1968.

The prevalence of the staphylococcal carrier state amon rheumatic children receiving penicillin G prophylaxis orall against streptococcal infection was found to be 46%. An attemp to alter the incidence of the staphylococcal carrier in these pa tients by substituting a sulfonamide drug for penicillin G as a antistreptococcal agent was unsuccessful.

CHLORPROPAMIDE POISONING

B. Greenberg, C. Weihl, and G. Hug (University of Cincinnat Cincinnati)

Pediatrics 41:146-147, (Jan.), 1968.

Clinical signs of hypoglycemia developed in a 3½-year-old bo 24 hours after he had eaten some of the attractively blue colored chlorpropamide tablets. Low blood sugar values pe sisted for four days after the ingestion concomitant with a increase in serum insulin concentration. On the fifth day, th blood sugar rose to normal levels. The serum insulin concentra tion was not significantly out of the normal range on each of th four follow-up examinations of this child.

VALUE OF CARDIAC ARREST TEAM IN UNIVERSITY HOSPITAL

M. A. Jung et al. (S. C. M. Lenkei, Toronto Western Hospita Toronto)

Canad. Med. Assoc. J. 98:74-78, (Jan. 13), 1968.

Of 100 patients attended to by a cardiac resuscitation tea over a period of two years, 20% were discharged well from ho pital. The longest follow-up was 3½ years and showed the p tient to be well and back at work. The most commo precipitating factor of the arrest was myocardial infarction an the most favorable electrographic pattern for resuscitation wa ventricular fibrillation. No patient with asystole could be su cessfully resuscitated. Cardiac arrest secondary to Stokes-Adam seizure had a relatively better prognosis than others. There wa no correlation between survival rate and age or sex of the p tient, the underlying disease, the precipitating factor, or th location of the myocardial infarction.

METHOTREXATE FOR ADVANCED CANCER OF THE BREAST

W. R. Vogler, (Emory University School of Medicine, Atlanta V. P. Furtado, and C. M. Huguley, Jr.

Cancer 21:26-30, (Jan.), 1968.

Forty-one patients with hormone-refractory metastatic brea carcinoma were treated with five-day courses of methotrexat alone, or in combination with androgens or prednisone. Of 3 who received at least three courses of methotrexate, 15 achieve objective remissions which lasted for an average of nine month There were no significant differences in frequency or duratio of responses in the group treated with methotrexate alone ar those treated with methotrexate plus androgens or prednison Remissions were seen in an additional 11 patients.

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ɜ needs counsel and reassurance, and perhaps a nquilizer to attenuate excessive tension and help tore the capacity to cope. As an aid to successful nagement, consider the value of Valium® (diaz-ım). As psychic tension is eased by Valium therapy,

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ications: Tension and anxiety states; somatic complaints ch are concomitants of emotional factors; psychoneurotic es manifested by tension, anxiety, apprehension, fatigue, ressive symptoms or agitation; acute agitation, tremor, de-m tremens and hallucinosis due to acute alcohol withdrawal; ınctively in: skeletal muscle spasm due to reflex spasm to l pathology, spasticity caused by upper motor neuron dis-ers; athetosis, stiff-man syndrome, convulsive disorders (not ole therapy).

ıtraindications: Known hypersensitivity to drug; children er 6 months of age; acute narrow angle glaucoma; may be l in patients with open angle glaucoma who are receiving ropriate therapy.

rnings: Not of value in treatment of psychotic patients, should not be employed in lieu of appropriate treatment. vith most CNS-acting drugs, caution patients against haz-›us occupations requiring complete mental alertness (*e.g.*, rating machinery, driving). When used adjunctively in con-ive disorders, possibility of increase in frequency and/or rity of grand mal seizures may require increase in dosage of dard anticonvulsant medication; abrupt withdrawal in such s may also be associated with temporary increase in fre-ıcy and/or severity of seizures. Advise patients against si-taneous ingestion of alcohol and other CNS depressants. ıdrawal symptoms (similar to those with barbiturates and hol) have occurred following abrupt discontinuance. Keep ction-prone individuals (such as drug addicts or alcoholics) er careful surveillance because of their predisposition to tuation and dependence. Use of any drug in pregnancy, ıtion or in women of childbearing age requires that potential efit be weighed against possible hazard.

cautions: If combined with other psychotropics or anti-vulsants, carefully consider individual pharmacologic effects rticularly with known compounds which may potentiate ›n of Valium, such as phenothiazines, narcotics, barbiturates, O inhibitors and other antidepressants. Employ usual pre-ions in the severely depressed or in those with latent depres-; suicidal tendencies may be present and protective mea-sures necessary. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation (initially 2 to 2½ mg once or twice daily, increasing gradually as needed or tolerated).

Adverse Reactions: Side effects most commonly reported: drowsiness, fatigue and ataxia. Infrequently encountered: confusion, constipation, depression, diplopia, dysarthria, headache, hypotension, incontinence, jaundice, changes in libido, nausea, changes in salivation, skin rash, slurred speech, tremor, urinary retention, vertigo and blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances and stimulation have been reported; should these occur, use of the drug should be discontinued. Because of isolated reports of neutropenia and jaundice, periodic blood counts and liver function tests are advisable during long-term therapy. Minor changes in EEG patterns (low-voltage fast activity) observed during and after therapy and are of no known significance.

Dosage: Individualize for maximum beneficial effect. *Adults:* Tension, anxiety and psychoneurotic states, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See **Precautions.**) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

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United Cancer Council Moves Its National Offices to Indianapolis

The United Cancer Council, a federation of 50 United Fund affiliated and service-oriented cancer agencies, has moved its national headquarters from Detroit to Indianapolis and has announced the appointment of Arthur A. Bean, Jr., as its new executive director.

The Council will occupy second floor offices at 1803 N. Meridian St., in the building recently purchased by one of its affiliated agencies — the Little Red Door of the Marion County Cancer Society.

Incorporated as a national organization February 15, 1963, the Council has affiliates such as the Little Red Door located in many states, coordinating their efforts to promote and exchange programs of research, public and professional education, and service.

National officers of the Council in Indiana include Robert L. Punsky, Fort Wayne, president and Mrs. Howard S. Williams, Jr., 3824 N. Delaware St., Indianapolis, vice president. Dr. Clyde G. Culbertson, 6060 N. Park Ave., is a member of the board of directors.

Physicians in Vietman

Dr. C. Richard Bowers of Anderson is completing his third tour of duty in Vietnam with the American Medical Association Volunteer Physicians. Dr. Bowers served a two-month tour early in 1966 and a second similar term in early 1967.

Dr. J. B. Bennett, Warren, is also in Vietnam and will return next month. The AMA Volunteer Physicians is an AMA sponsored program which seeks to provide American medical help for the health needs of the Vietnamese civilian population.

Dr. Burney Named President

Dr. Leroy E. Burney, formerly State Health Commissioner, and later Surgeon General of the Public Health Service, and presently vice-president of Health Sciences of Temple University took office as president of the National Health Council during the Council's annual meeting recently. The Council membershi consists of all of the major private and public health organizatior in the U.S.

San Francisco Event Planned By I.U. Alumni

The Indiana University Alumni Association has announce special plans for a bay cruise, reception and dinner during th American Medical Association Convention, June 16 throug June 20 in San Francisco.

The affair is being planned for Monday Evening, June 1 I.U. alumni will board a private boat for a cruise across Sa Francisco Bay to Tiburon, where dinner will be served at th Dock Restaurant.

According to alumni association spokesmen, the Dock has a excellent view of San Francisco and the food is rated "tops. Cost of the evening has not yet been determined but detaile information will be sent to all alumni soon.

Dr. Shepard Honored

Dr. Fred F. Shepard, College Corner, Ohio, was recentl honored for his long service to the community at a dinner give by the College Corner and Oxford communities. Gov. Rog Branigin was among 500 guests who came from throughout th midwest for the affair. Dr. Shepard was the recipient of a cas gift given in memory of a daughter who died of cancer.

Dr. Welborn Gives Talk

Dr. Mell B. Welborn, Evansville, spoke on "The Crisis i Medical Manpower" at the recent commencement exercis graduating 26 women from the School of Practical Nursing i the Howard Roose School.

Miss Ellen Wells History Of Medicine Society Speaker

Miss Ellen Wells, of the Medicial History Division of the Na tional Library of Medicine, Bethesda, Maryland, will be th principal speaker at the June 5 meeting of the John Shaw Bi lings History of Medicine Society. Her topic will be "18t Century Medical Illustration."

The group meets at the I.U. Student Union Building, Ind anapolis, with a social hour beginning at 6:00 p.m. Dinner is se for 6:45 p.m. and the speaker at 8 p.m.

Dr. Girod Shows Film

Dr. Arthur H. Girod, Decatur, showed his films of Vietna and spoke of his impressions of the people and the countr gained during his volunteer service there, to the Zion Luthera Missionary society recently.

Dr. Farquhar Attends Session

Dr. John S. Farquhar, Fort Wayne general practitione recently attended the annual scientific assembly of the America Academy of General Practice in Dallas, Texas.

Indiana Physicians Re-Elected to American Academy of General Practice

Eleven Fort Wayne medical doctors have been re-elected t active membership in the American Academy of General Prac tice. They are Drs. John S. Farquhar, Walter G. Hackett, Jr Alvin J. Haley, William A. Kleifgen, Jerome C. Schuber Berniece M. Williams, Donald M. Hickman, Richard B. Juergens John E. Krueger, Victor C. Moeller and Donald J. Parrott.

THE first Indiana Cured Cancer Assembly was held in Indianapolis on March 17. Each of the persons in the picture has been cured of cancer and each represents an Indiana county. Dr. Roger A. Harvey, Chicago, (holding the Sword of Hope) is president of the National American Cancer Society. Dr. Harvey spoke at the assembly, which kicked off the 1968 Indiana Cancer Crusade. The 80 cured cancer representatives were joined by more than 550 Indiana American Cancer Society volunteers at the meeting.

Other state physicians re-elected to the organization are: Drs. William C. Heilman, Kenneth G. Hill, Frank C. McDonald and Roy G. McKee, New Castle; Drs. George M. Ellis and Bertram W. Sanders, Connersville; Dr. Robert L. Koenig, Valparaiso; Dr. Paul A. Williams, Rensselaer; Dr. Richard E. Lahr, Marion and Dr. Richard G. Mehne, Brazil.

Drs. Benedict A. Biasini, Frederick J. Colosey, Irvin L. Zeiger and William J. McCraley, South Bend, also were re-elected to the AAGP. Indianapolis physicians re-named are Drs. Henry G. Nester, Fred A. Hendricks and Robert W. Mouser. Others named in the state include: Drs. Glynn A. Rivers and K. William Koss, Muncie; Dr. John R. Dragoo, Wabash and Dr. Franklin K. Beeler, Anderson.

Wallace Pharmaceuticals Establishes Masters Course for Detailmen

Wallace Pharmaceuticals has established a Masters Course for its professional representatives. In order to allow the detailmen to keep up with the tremendous expansion in medicine and in pharmaceuticals, Wallace is providing a course of study which will extend over a three-year-period and be monitored by written examinations. This is in addition to the intensive five-week basic course which all representatives take.

Wallace representatives in Indiana who will be following the Masters Course are Carl E. Simon, Robert L. Leturgez, Jere L. Crawley, Guy P. Fuller, Charles Lang, Jr., James P. Robb and Donald Mcneely. The Wallace Regional Director is Murray McDevitt and the District Manager is Robert M. Donohue.

Dr. Fisher Gives Talk

Dr. Pierre J. Fisher, Jr., Marion, spoke on "The National Air and Space Administration and the Mercury programs" at a recent meeting of the Kiwanis Club there.

Dr. Green Renamed to Epilepsy Post

Dr. Joseph B. Green, Indianapolis, director of Indiana University Medical Center's Epilepsy Clinic, has been reappointed chairman of the Epilepsy Committee of the Mental Health Association in Indiana.

Educational Film on Hypertension Now Available to Physicians

E. R. Squibb & Sons announce a new educational medical film entitled "Hypertension: The Challenge of Diagnosis" which was made by the American Heart Association and Squibb.

The film covers both diagnosis and management. It is in color and sound, runs for 20 minutes, and is the customary 16-mm. size. It is available for medical audiences from local heart association chapters or from E. R. Squibb & Sons, 745 Fifth Ave., New York City 10022.

Doctors are Speakers

Drs. Stephen R. Phelps, Morris S. Friedman, Marlin L. Troyer, W. Robert Orr, and Charles Baran, South Bend, were speakers at a recent symposium on athletic injuries sponsored by the St. Joseph County Medical Society and the American College of Surgeons.

Dr. Phelps discussed "Skin Problems"; Dr. Friedman, "Shoulder Injuries"; Dr. Troyer, "Knee Injuries"; Dr. Orr, "Ankle Injuries"; Dr. Baran, "Danger Signs in Head Injuries", and Dr. Robert H. Denham, Jr., orthopedist, introduced the program.

Dr. Burkhardt is Speaker

Dr. Boyd A. Burkhardt, Tipton, recently spoke at the dedication ceremony for the second-floor addition of Hendricks county hospital.

Dr. Brockmole Reappointed

Dr. Arnold W. Brockmole, Evansville, has been reappointed

by Gov. Roger D. Branigin to the Indiana Health Facilities Council for a four-year term.

Dr. Craig is Speaker

Dr. Harry L. Craig, Huntingburg, spoke at a recent meeting of the Holland Kiwanis Club. Dr. Craig spoke on his recent trip to Vietnam where he took part in the program for Aid to International Development.

Atomic Energy Commission Withdraws From Distribution of Cobalt 60

The Atomic Energy Commission is withdrawing from the production and distribution of cobalt 60 in favor of private industry.

The commission will continue to meet requests for cobalt 60, as it does with other withdrawn isotopes, when the purchaser certifies a need for a quality or quantity not available commercially. AEC policy since 1961 has been to gradually drop production of radioisotopes when private firms are able to supply the market. Thirty eight different isotopes have been dropped: 80 are still being produced by the commission.

Dr. Walther Elected

Dr. Joseph E. Walther, Indianapolis, has been elected to the board of The Buehler Corp. Dr. Walther is president of Winona Memorial Hospital.

Dr. Stevenson Speaker

Dr. Jerry L. Stevenson, Anderson, spoke on "Interesting Facts Regarding Cancer" at a recent program which was sponsored by the Loan Cupboard for Cancer patients for the ladies in the Arrow Heights Church of God. Films entitled "Lies Against Its Self" and "A Habit For Life" were also shown.

ARTIFICIAL LIMB WEARERS

Hanger Limbs are being successfully worn by amputees of all ages. David Canfield, just 13 months *(illustrated)*, is one of the many young children growing up on Hanger Legs. In contrast, Captain W. T. Traylor, over 75 *(illustrated)*, now wears his fifth Hanger. He is a fire inspector who must cover continually hospitals, schools, sports events, etc., and be on his feet for hours at a time.

Age: 13 Months

The success of Hanger Limbs with amputees of such widely varying types can be largely attributed to custom manufacture and individual fitting. Unusual conditions are carefully investigated by experienced fitters, and limbs are manufactured to meet individual requirements.

Age: 78 Years

Hanger's experience of over 100 years is given to every amputee so that his rehabilitation may be successful.

Hanger PROSTHESES

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3108 Burnet Avenue, Cincinnati, Ohio 45229
446 W. Pontiac Street, Fort Wayne, Ind. 46807
416 N. Main St., Evansville, Ind. 47711

Pfizer Laboratories Announces Medical School Scholarships

Pfizer Laboratories announces that it will make available $1,000 medical school scholarships to each of the country's 98 medical schools this year.

This brings their scholarship contribution to a total of $640,000 since the program originated in 1962.

Dr. Robinson Elected

Dr. Robert D. Robinson, Jr., Bloomington, has been appointed the medical education director for the Bloomington Hospital. Dr. Robinson will be coordinating the educational activities in Bloomington Hospital.

Doctors Honored

Drs. Robert K. Dodd and Henry Leibundguth, Evansville, and **Dr. Roland E. Weitzel, Princeton,** were among 139 in the nation honored for their support of the Hahnemann Medical College of Philadelphia.

"Emphysema, the Battle to Breathe" is New PHS Booklet

"Emphysema, the Battle to Breathe" is the title of a newly published Public Health Service booklet written for the patient and the general public. It presents what can be done for even those seriously crippled by the disease.

Special attention is given to training steps in which the patient can be taught to clear his own airways and to retrain breathing muscles. The booklet is a reprint of an award-winning five-part series written by Frank E. Carey, AP Science Writer. It may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, for 35 cents a copy or $26.25 a hundred.

Dr. Morrison Named

Dr. J. Trevor Morrison, Greensburg, has been appointed by Mayor Alden L. Westhafer to fill out the unexpired term of the late Dr. Charles Overpeck on the Decatur County Health Board.

Dr. Strayer Named

Dr. Joseph W. Strayer, Lafayette, has been appointed by Gov. Roger D. Branigin to the Indiana Tuberculosis Council. **Dr. John D. Miller, Indianapolis,** was also reappointed.

SS-HOPE Sails to Ceylon

The hospital ship HOPE sailed from Fort Lauderdale recently for a ten-month station at Columbo, Ceylon, with approximately $50,000 worth of hearing equipment, the gift of the hearing aid dealers and manufacturers of America.

Dr. Smith is Speaker

Dr. Barton T. Smith, Marion, addressed the Marion Area Mothers of Twins Club at a recent meeting there.

Dr. Bowen Honored

Dr. Otis R. Bowen, Bremen, received an award of appreciation for outstanding service to residents of Indiana as well as to the medical profession at a recent ceremony conducted by the 3th District Medical Society.

Tom S. Miya, Purdue Head, Appointed Special Consultant

Tom S. Miya, head of the Department of Pharmacology and Toxicology at Purdue University, has been appointed by the Surgeon General of the United States as a special consultant.

Miya has a special assignment to the National Institute of General Medical Sciences, National Institutes of Health, to aid in providing advice to the National Advisory General Medical Sciences Council.

The function of this group is to help develop a body of knowledge that will provide a rational basis for the use of drugs and other chemicals which ultimately affect man. In addition, the group helps to predict the potential hazards of chemical intoxication and to provide a foundation upon which to base the training of scientific manpower in this country.

New Market Analyst

Kenneth A. Speranza, who holds a M.S. degree in pharmacy administration from Purdue and is a candidate for a Ph.D. from Purdue, has joined the Atlas Stuart Division as a pharmaceutical market analyst.

Dr. Davis Named

Dr. William H. Davis, New Market, a part-time consulting psychiatrist, has been appointed at DePauw University. This newly created position is an additional counseling service offered by DePauw. Dr. Davis will be available for consulting with individual students.

Dr. Golper Elected

Dr. Marvin N. Golper, Kokomo, has been elected president of the Indiana Division, American Cancer Society. Dr. Merritt O. Alcorn, Madison, is the new president-elect of the society.

Dr. Botero Promoted

Dr. J. M. Botero has been promoted to the position of Division Medical Director of the Ames Company Division of Miles Laboratories, Elkhart, Indiana.

Dr. Lloyd Speaks

Dr. Frank P. Lloyd, Indianapolis, director of medical research at Methodist Hospital and president of the Metropolitan Plan Commission, spoke recently during the achievement day program at New Bethel Baptist Church.

Dr. Landis Presents Program

Dr. C. B. Landis, Lafayette, presented a program at the recent meeting of the Benton County Extension Homemakers. Dr. Landis spoke on the professional aspects of the Eye Bank Program. He also presented a film and made literature available concerning donating to the Eye Bank. ◄

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anticostive* hematinic

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Send me samples
of Peritinic

Rx

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Pearl River, New York 10965)

* anticostive, *adj.* (*anti* opposed to + *costive* causing constipation.) Against constipation. (Now isn't that a good idea in an iron-containing hematinic?)

PERITINIC®

Hematinic with Vitamins and Fecal Softener

A tablet-a-day provides:

● Elemental Iron (as Ferrous Fumarate)	100 mg
● Dioctyl Sodium Sulfosuccinate (to counteract constipating effect of iron)	100 mg
Vitamin B_1	7.5 mg
Vitamin B_2	7.5 mg
Vitamin B_6	7.5 mg
Vitamin B_{12}	50 mcgm
Vitamin C	200 mg
Niacinamide	30 mg
Folic Acid	0.05 mg
Pantothenic Acid	15 mg

Bottles of 60

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489-7—6063

The Cancer You View

DISCUSSION

The history of weakness (found related to anemia) and abdominal discomfort should cause the physician to suspect a bleeding neoplasm of the abdominal viscera, and in particular, cancer of the right colon. The barium enema confirmed this.

The average age of the patients with colon cancer is 60. In approximately 15%, the cancer arises in the right colon. Cancers of the right colon obstruct only when they become quite large. They are more apt to produce only vague abdominal pain. They produce anemia because of the large ulcerated and fungating surface which bleeds easily and frequently. The bleeding is usually slow enough so as not to color the stool, but steady enough to produce anemia and the secondary symptoms of weakness and fatigability.

After the barium enema, a "bowel prep" with sulfasuxidine was started. The admission hemoglobin was 7.8 gms. The guaiac stool test was positive for occult blood. The chest x-ray, EKG, intravenous pyelogram, upper gastrointestinal series, sigmoidoscopy, chemistry profile and other laboratory findings were all normal. Proctosigmoidoscopy, in addition to the barium enema, should be performed to rule out multiple cancers and polyps which occur in 8% to 10% of patients.

The treatment of cancer of the colon is wide surgical excision with all of the mesentery and included vessels and lymphatics to the respective portion of the colon. The first question to ask is not can the ends of the colon be sutured together, but, has all of the cancer with a wide, safe margin of normal tissue been removed?

This patient was transfused with packed red blood cells until the hemoglobin reached 10.5 gms. At exploratory laparotomy a large mass compatible with cancer of the cecum was found. No evidence of spread by metastasis or extension was present. The entire right colon, the right half of the transverse colon, and a generous segment of ileum (about fourteen inches) with all the included mesentery, vessels and lymphatics were removed en bloc. A primary end-to-end anastomosis of the ileum to the transverse colon was performed. The pathologist reported adenocarcinoma with extension into the muscularis but not through the serosa. None of the mesenteric lymph nodes contained cancer.

The expected prognosis in cancer of the right colon with no evidence of metastasis of liver or regional lymph nodes or extension into adjacent tissues is 60% to 70% alive five years after surgery.

Of special note is the empirical treatment for "anemia" utilized by the physician in this case. Since bleeding from the ulcerated surfaces of cancers of the colon is often insidious and occult, anemia is one of the more common early findings. All anemias have a cause. All have specific rational management. Unless the cause of the anemia is sought, medical treatment in the instance of "chronic blood loss" anemia is irrational since the cause of the blood loss is the primary disease that needs treatment. If it is a bowel cancer, the therapy is resection. In one study,[1] 20% of 303 patients with colon cancer had received treatment for "anemia", 12% of them prior to diagnostic studies. A guaiac[2] test of feces adherent to the gloved finger after rectal examination is sufficient to indicate occult blood from gastrointestinal bleeding—to suggest the cause of an anemia—and indicate the need for proctosigmoidoscopy and radiologic bowel studies and to set the course for early curative treatment of a bowel cancer.

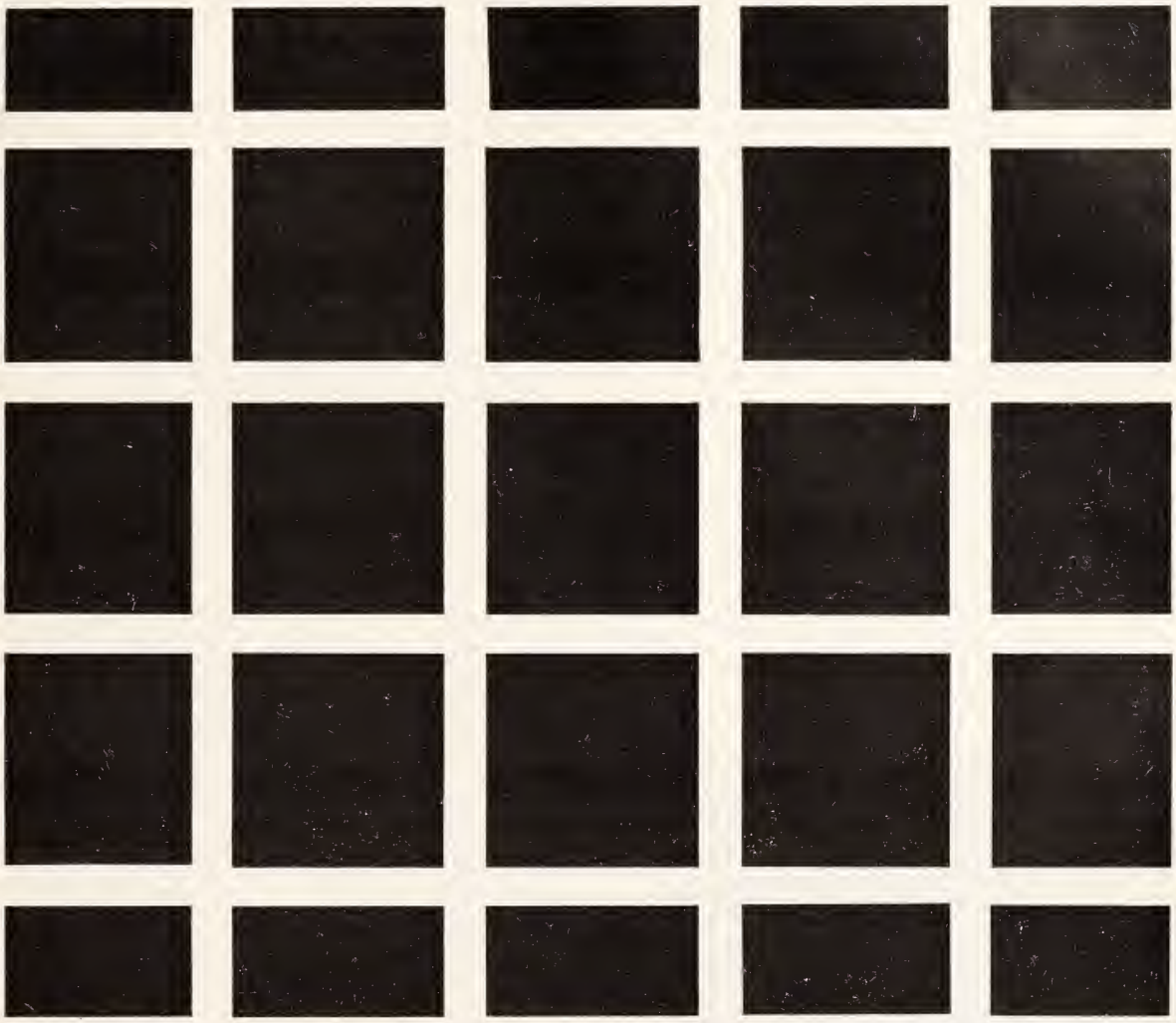
REFERENCES

1. Fass, Leroy, Anderson, W., Young, L. E.: *Amer. J. Med. Sc.* 251:255-259, 1966.
2. Guaiac test.
   a. Place fecal smear on gauze.
   b. Add a few drops of glacial acetic acid to edge of smear.
   c. Add a few drops of saturated gum guaiac in 95% alcohol.
   d. Add a few drops of 3% hydrogen peroxide.
   e. A development of a definite blue color at the edge of the smear within 30 seconds indicates the presence of blood (hemoglobin). (Commercial tablet tests are available: Ames Company, Elkhart, Indiana).

1815 N. Capitol Ave.
Indianapolis 46202

The error of our eye directs our mind.

William Shakespeare, *Troilus and Cressida (1601)*



Black squares on a white background. But you also see *gray spots* where the white lines intersect, don't you? Or do you—*really?* Now look at *just one* of the gray spots. Gone! Or was it ever there in the first place? So where does the error lie? In the mind . . . or the eye? In neither . . . or in both?

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Second Miles International Symposium on Molecular Biology

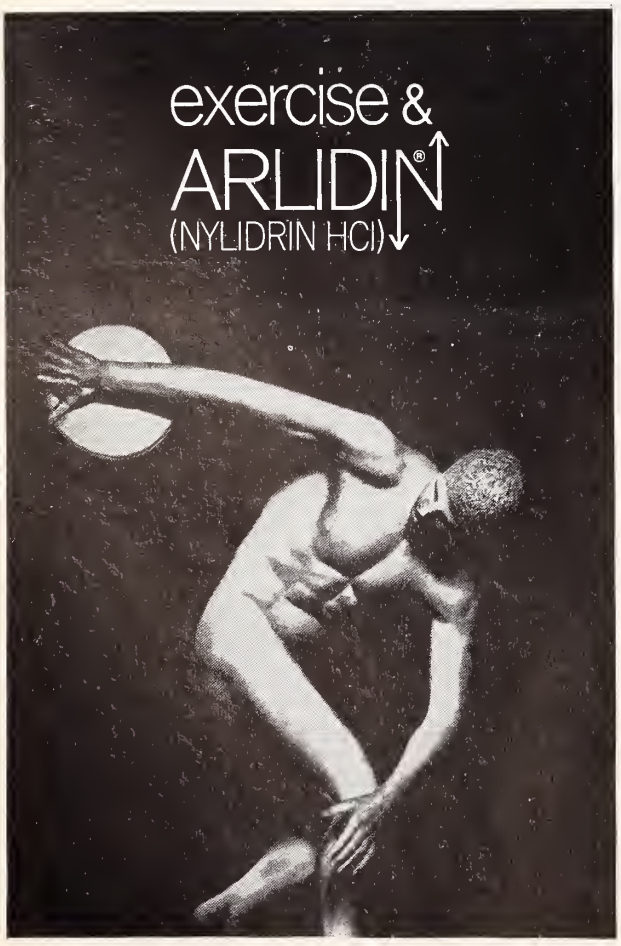
The second Miles International Symposium on Molecular Biology will be held at the New York Hilton Hotel in New York City on June 7 and 8. The subject will be "Transfer of Genetic Information in Protein Synthesis (Synthesis, Structure and Function of Transfer RNA)."

The first Miles Symposium was held in 1967 and dealt with messenger RNA. It was singularly successful for the first of a series of meetings, with over 900 investigators in attendance. For further information write Miles Laboratories, Research Products Dept., 1127 Myrtle St., Elkhart, Indiana 46514.

General Practice Review Course Set for Colorado in July

"General Practice Review"—a postgraduate course designed especially for general practitioners will be conducted by the University of Colorado School of Medicine in Denver for six days—July 21 to 27.

Each day will be devoted to an important area of practice. Doctors may register for entire course or for any selected days. Write Office of Postgraduate Medical Education, Box 2736, 4200 E. Ninth Ave., Denver 80220 for full information and a detailed program.



15th Western Cardiac Conference to be October 9-11

The 15th Western Cardiac Conference will be held on October 9, 10 and 11 at the University of Colorado Medical Center in Denver.

Subjects covered on each of five half-days will be—Altitude and Sports Medicine; Congenital Heart Disease; Current Problems in Coronary Care; Auscultation and Arrhythmias and Cardiac Surgery. For further information write Colorado Heart Association, 1375 Delaware St., Denver 80204.

American College of Legal Medicine Professional Meeting

The American College of Legal Medicine will hold its Professional-Clinical Meeting at the San Francisco Hilton Hotel at 2 p.m. on Sunday, June 16.

The theme of the program will be "Medical-Legal Problems with the Patient in Mind." There will be a banquet at 6 p.m. that night. Dr. James L. Goddard, Commissioner of Food and Drugs, will speak. Programs and reservation cards may be obtained by writing the College at 60 E. Scott St., Suite 402, Chicago 60610.

Second International Congress Of the Transplantation Society

The Second International Congress of the Transplantation Society will meet in New York City on September 7 to 11 at the Americana Hotel.

Subjects covered will include bone marrow transplantation, transplantation of organs and rejection phenomena. Write Chairman Fleix T. Rapaport, 560 First Avenue, New York City 10016.

Medical Writing Course To Follow AMA Meeting

A two-day course in medical writing will be held at the University of California San Francisco Medical Center on June 21-22, immediately after the AMA meeting. The course is designed to assist and provide practical guidelines to physicians and others who are interested in medical writing and journalism.

Speakers will include distinguished editors, authors and members of the American Medical Writers Association. The cost has been tentatively set at $50, but may be lower. Write Dr. M. Coleman Harris, 450 Sutter St., San Francisco, California.

Selye's "Stress and Headache" Highlights Headache Research Meeting

The American Association for the Study of Headache will hold its tenth annual meeting on June 15, in connection with the AMA meeting. The scientific program consists of many authoritative discussions by internationally known clinicians.

Dr. Hans Selye will talk on "Stress and Headache." The program will be in the St. Francis Hotel. Write to Dr. Seymour Diamond, 5214 N. Western Ave., Chicago 60625, for complete information.

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Blue Cross–Blue Shield's success is measured not in earnings but in benefits provided its members. That's why so many people—particularly at homecomings—are likely to say: **"I don't know what we would have done without Blue Cross–Blue Shield."**

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(One of a series of ads being run in key Hoosier newspapers)

1968 Summer Camp for Diabetic Children July 14-August 4 in Wisconsin

The Summer Camp for Diabetic Children will be conducted for the 20th year under the auspices of the Diabetes Association of Greater Chicago from July 14 through August 4, 1968 at Holiday Home, Lake Geneva, Wisconsin. Boys and girls from eight through thirteen years of age are eligible.

As in previous years, the camp will be staffed by resident physicians, a nurse, dietitians and laboratory technicians, in addition to the regular counseling and domestic staff of Holiday Home.

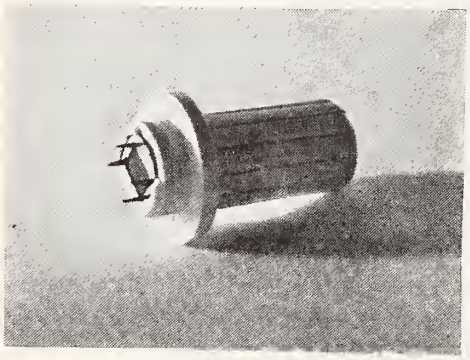
Rates for summer camp are arranged in accordance with individual circumstances. Applications may be obtained from, and inquiries should be directed to: Diabetes Association of Greater Chicago, 620 N. Michigan Ave., Chicago, Illinois 60611, 943-8668.

Congress on Medicine and Insurance Preceding AMA Annual Meeting

A congress on medicine and insurance will be held on June 15 at the Fairmont Hotel, San Francisco. It is sponsored by the Association of Life Insurance Medical Directors of America and the AMA and will immediately precede the AMA annual meeting which starts June 16. All physicians who are interested are urged to attend.

To fight TB- find it first!

Make tuberculin testing routine with every physical examination.



TUBERCULIN, TINE TEST (Rosenthal)

Side effects are possible but rare: vesiculation, ulceration, or necrosis at test site. Contraindications: none, but use with caution in active tuberculosis. Available in 5's and 25's.

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University of Colorado School Of Medicine Postgraduate Course

The University of Colorado School of Medicine announces a four-day postgraduate course in Obstetrics and Gynecology, to be held at the Stanley Hotel in Estes Park, Colorado, June 17 through 20. This course is designed primarily for the obstetrician-gynecologist and topics to be presented include fetal distress, uterine dysfunction, treatment of ovarian carcinoma, chemotherapy, management of ovarian masses, and the role of radical surgery for gynecological malignancies.

Three eminent guest speakers will participate: Louis M. Hellman, M.D., Brooklyn, New York; Charles A. Hunter, M.D. Seattle, Washington; and Richard F. Mattingly, M.D., Milwaukee, Wisconsin. Tuition and registration fees are $80.00.

For further information and a detailed program, write to: The Office of Postgraduate Medical Education, University of Colorado School of Medicine, 4200 E. Ninth Ave., Denver, Colorado 80220.

54th Annual Postgraduate Course In Ophthalmology set for July 8-11

The Fifty-Fourth Annual Postgraduate Course in Ophthalmology and the summer convention of the Colorado Ophthalmological Society will be held at the Stanley Hotel in Estes Park Colorado, on July 8 to 11.

Tuition for the four days is $80. Detailed program will be available May 1. For program and housing information write The Office of Postgraduate Medical Education, 4200 E. Ninth Ave., Denver 80220.

National Society for Prevention Of Blindness Annual Conference

The National Society for the Prevention of Blindness will hold its annual conference at the Roosevelt Hotel in New York City on November 20, 21 and 22, and at the same time will commemorate its 60th anniversary.

Details on topics and speakers may be obtained later by writing to the Society at 79 Madison Ave., New York City 10016.

Denver Children's Hospital Announces Summer Clinics in June

Children's Hospital, Denver, is holding its Summer Clinics at Vail on June 26, 27, 28. Guest faculty will include Virginia Apgar, M.D., M.P.H., The National Foundation; Louis K. Diamond, M.D., Harvard University; Robert G. Frazier, M.D. The American Academy of Pediatrics; Harry Medovy, M.D. F.R.C.P.(C), University of Manitoba; Paul Wehrle, M.D., University of Southern California. There will be morning seminars and lectures followed by afternoons of leisure in the Rocky Mountains.

Fee is $40.00. Guest reservations will be accepted in order of receipt of registration fee. Registration will be limited. Write Department of Continuing Education, Children's Hospital, Nineteenth Avenue at Downing, Denver, Colorado 80218.

County, District News

Fifth District

Dr. J. W. Somerville, Clinton, is the ewly elected president of the Fifth Dis- rict Medical Society and Dr. Milton Herzberg, Clinton, is the new secretary- reasurer. Speaker at the April 3 meeting f the district was Dr. P. J. V. Corcoran, SMA president-elect, who spoke on "What Ahead for Medicine."

Bartholomew-Brown

Speaker at the March 6 meeting of the artholomew-Brown County Medical Soci- ty was Dr. John Hickam, Indianapolis, hairman of the Department of Medicine, ndiana University School of Medicine. His opic was "Medical Education."

Cass

Dr. Arthur Baptisti, Indianapolis, spoke n "Hormonal Contraception" at the Iarch 4 meeting of the Cass County Med- al Society. Thirty members and guests tended.

Dearborn-Ohio

"The Newer Concepts in the Treatment Leukemia" was the subject chosen by r. Herbert C. Flessa, Cincinnati, when he oke at the March 7 meeting of the Dear- orn-Ohio County Medical Society.

Elkhart

Arthur C. White, professor in the De- artment of Medicine at Indiana Univer- sity, spoke on "Antibiotics in Renal Fail- ure" at the March 7 meeting of the Elk- hart County Medical Society.

Fountain-Warren

Mr. Dickinson discussed Blue Cross-Blue Shield insurance with members of the Fountain-Warren County Medical Society at their March 7 meeting.

Greene

Dr. Robert E. Moses, Worthington, has been re-elected president of the Greene County Medical Society and Dr. Harry Rotman, Jasonville, has been re-elected secretary-treasurer.

Henry

A joint meeting between the Henry County Medical Society and New Castle members of the ministerial association was held March 21. Discussion centered on how physicians and ministers can better co- operate in the care of sick patients and their families.

Jackson-Jennings

The March 4 meeting of the Jackson- Jennings County Medical Society featured a discussion on "Emergency Heart Treat- ment."

Jay

Dr. Roche of Muncie spoke on "Glau- coma" at the February 7 meeting of the Jay County Medical Society.

Jasper

Newly elected officers of the Jasper County Medical Society are: Drs. Ernest R. Beaver, president and Francis E. O'Brien, secretary-treasurer. Both of the new officers are from Rensselaer.

Montgomery

Dr. Richard Linebeck spoke on "Treat- ment of Heart Block" at the March 21 meeting of the Montgomery County Med- ical Society.

Pulaski

Dr. H. R. Eshelman, Monterey and Dr. E. L. Hollenberg, Winamac, have been re- elected president and secretary, respec- tively, of the Pulaski County Medical Society.

Putnam

Dr. Ryland Roesch, Indianapolis, was the principal speaker at the March 8 meet- ing of the Putnam County Medical Society. He spoke on "Anesthetic Technics" with special reference to Fluothane.

Shelby

Eugene Kimble spoke on "Ten Keys to Keogh" at the March 7 meeting of the Shelby County Medical Society.

Vanderburgh

"Acute Renal Failure" was the subject chosen by Dr. Stuart Kleit, Indianapolis, when he spoke at the March 12 meeting of the Vanderburgh County Medical Society. ◄

AMA Aids

As an aid to medical societies, individual physicians, members of the Woman's Auxiliary and others concerned with health careers programming, the AMA has developed a four-page pamphlet describing its new health careers film, "Horizons Unlimited," a sequel to the paperback of the same name.

The back page of the pamphlet, in addition to providing capsule information about the film, contains a tear-off order form.

Copies of the promotional form may be obtained in whatever quantities desired for personal use, community or other distribution from the Program Services Department, AMA, 535 N. Dearborn, Chicago, Ill. 60610.

Deaths

H. Herman Ash, M.D.

Dr. H. Herman Ash, former member of the Tippecanoe County Medical Society, died March 30 at the age of 68.

A West Lafayette physician from 1928 to 1959, Dr. Ash was graduated from the University of Michigan School of Medicine in 1924 and served on the staffs of Home and St. Elizabeth hospitals.

Andrew J. Bacevich, M.D.

Dr. Andrew J. Bacevich, 45-year-old Hammond physician, drowned March 19 after a boating mishap.

Dr. Bacevich and a colleague were fishing when their boat made a sharp turn and threw both of the men into Lake Michigan. Dr. Walter Urbanski, Munster, was able to swim to shore after the accident. Dr. Bacevich was graduated from the Loyola University School of Medicine in 1953 and had practiced in Lake County since 1959.

Samuel J. Brady, M.D.

Dr. Samuel J. Brady, Gary physician since 1940, died February 19. He was 54.

Dr. Brady, graduated from Washington University School of Medicine in 1937, was city health commissioner for 16 months in the late 1950's after having served as a member and president of the Gary Health Board. He was a member of the Lake County Medical Society and staff member at both Mercy and Methodist hospitals.

Ralph W. Bruner, M.D.

Dr. Ralph W. Bruner, 77, a practicing physician in Jeffersonville for approximately 50 years, died February 2.

Graduated from the University of Louisville School of Medicine in 1919, Dr. Bruner was elected by the Jeffersonville City Council to the Board of School Trustees in 1939. He became president of the board in 1941.

John E. Fisher, M.D.

Dr. John E. Fisher, 55-year-old Attica physician and member of the Fountain-Warren County Medical Society, died March 13.

Graduated from the I.U. School of Medicine in 1935, Dr. Fisher had practiced medicine at Attica since 1945. During World War II, he was a captain in the Air Force, serving in Africa and Sicily.

Claude Holmes, M.D.

Dr. Claude Holmes, 87, retired physician died February 4 at his home in Coral Gables, Florida.

Dr. Holmes was graduated from Rush Medical College in 1912. After serving in the army from 1917 to 1944, Dr. Holmes opened his medical practice in Frankfort. He retired in 1960 and moved to Florida. He was a Senior Member of ISMA, a member of the 50-Year Club and the Clinton County Medical Society.

Ralph M. McDonald, M.D.

Dr. Ralph M. McDonald, 67-year-old retired physician, died March 10.

Dr. McDonald, who practiced for nearly 40 years in South Bend and Mishawaka, retired in 1965. He was a former member of the St. Joseph County Medical Society.

Dan L. Urschel, M.D.

Dr. Dan L. Urschel, Mentone physician since 1937, died March 4 at his home.

Dr. Urschel, 57, a heart specialist and past president of the National Flying Physicians Association, was graduated from Rush Medical College in 1936. He retired last May due to ill health and was a member of the Kosciusko County Medical Society.

Loss for Words?

When it's time to deliver a speech, are you at a loss for words? Is your approach ineffective? Are you confronted with "delivery dilemma?" A possible solution to these typical problems is now provided by the Officers Services Department of the American Medical Association.

An invaluable kit, "An Aid To Speakers," may be the key to your individual success and/or the success of your speakers program. It contains a veritable wealth of source materials, ranging from generalized speeches aimed at lay audiences to numerous, up-to-date training tips. Physicians may obtain single copies free of charge by directing their requests to the Officers Services Department. Quantities of up to 50 are made available to state and county medical societies sponsoring formal speakers programs.

Association News

EXECUTIVE COMMITTEE

March 6, 1968

Present: Ralph V. Everly, M.D., chairman; Burton E. Kintner, M.D.; G. O. Larson, M.D.; Patrick J. V. Corcoran, M.D.; Lowell H. Steen, M.D.; Lester H. Hoyt, M.D.; Malcolm O. Scamahorn, M.D.

James A. Waggener, executive secretary.

Councilors present: Gilbert A. Wilhelmus, M.D.; Donald M. Kerr, M.D.; Joe Dukes, M.D.; Robert M. Reid, M.D.; Wilbert McIntosh, M.D.; Albert M. Donato, M.D.; Donald R. Taylor, M.D.; Lowell J. Hillis, M.D.; William R. Clark, M.D.

Other guests were Kenneth O. Neumann, M.D., and Joe M. Black, M.D.

Headquarters Office

The secretary gave a report on the computerized billing for dues.

Letter from the Hoosier State Press Association concerning an advertisement from the association for its annual convention issue was read. By consent, the committee approved a three-fourth page ad for this publication.

Request of the Tuberculosis Association for use of the mailing list to mail a pamphlet on "Chemoprophylaxis for the Prevention of Tuberculosis" was approved on motion of Drs. Steen and Kintner.

The secretary requested clarification of the action of the House of Delegates and the Council concerning the appropriation to Indiana Health Careers and upon motion of Drs. Steen and Larson, the contribution of $500.00 was approved.

Treasurer's Office

The treasurer reported on fund balances and investments and said that upon the action previously taken, he had sought advice from an investment counselor other than the bank and the counselor's fee would be $50.00 for this service. On motion of Drs. Hoyt and Larson the expenditure of $50.00 was approved. On motion of Drs. Hoyt and Larson, the treasurer's report was approved.

Organization Matters

The question concerning the holding of a conference of county medical society officers on comprehensive health planning on the proposed dates of March 30 and March 31 was discussed. On motion of Drs. Steen and Larson, this matter was referred to the Council with the recommendation that such a conference be held March 30 and 31.

The secretary read letters from Dr. A. S. Woodard, Jr., Dr. Winfield Scott, Dr. Lowell I. Thomas, and the Jefferson-Switzerland County Medical Society, for the information of the committee.

Report from Dr. Dwight W. Schuster, chairman of the Commission on Legislation, concerning his attendance at the meeting of the AMA Council on Legislative Activities was reviewed for the information of the committee.

A letter from Dr. Robert B. Stonehill, director of the Indiana Regional Medical Program, concerning the Indiana representation on the IRP program was reviewed and the representatives listed were approved on motion of Drs. Steen and Kintner.

Correspondence concerning the establishment of a medical museum in Spencer, Indiana, was taken as a matter of information, on motion of Drs. Hoyt and Kintner.

Several matters from the minutes of the Commission on Public Health were reviewed for the information of the committee.

A letter from Dr. Steen concerning Junior-Senior Day was referred to the Council upon motion of Drs. Steen and Larson.

The minutes of the meeting of the Commission on Public Health were reviewed and upon motion of Drs. Steen and Corcoran, these were referred to the Council for its review.

A letter was read from the president of the Woman's Auxiliary concerning the auxiliary participating in Indiana Health Careers, Inc., and participation was approved on motion of Drs. Kintner and Larson.

Correspondence from Dr. Booher, chairman of the Commission on Voluntary Health Agencies, was read and upon motion of Drs. Steen and Corcoran, this was referred to the Council.

The secretary read a report of the action of the Board of Trustees of the AMA on appointments which had been made by the board, and this was taken as information.

A request for sanction by the association of the Indiana Vocational Technical College was referred to the Commission on Medical Education upon motion of Drs. Corcoran and Steen.

A report on actions taken by the Council of Medical Specialty Societies was reviewed for the information of the committee.

A question concerning the ethics of an M.D. advising and assisting in surgery a veterinarian was discussed and upon motion of Drs. Steen and Kintner, this matter was referred to the Council.

The letter proposed by the president-elect for the association to send to professional medical organizations over the signature of the president was reviewed and upon motion of Drs. Corcoran and Steen, this matter was referred to the Council.

Annual Convention, October 15, 16, 17 and 18, 1968, Fort Wayne

The outline of the annual convention program and the report of the Commission on Convention Arrangements were reviewed and referred to the Council by consent.

The contract between the association and the Ancient Accepted Scottish Rite, Valley of Fort Wayne, for use of its facilities was approved on motion of Drs. Kintner and Corcoran.

A letter from Mead Johnson Laboratories concerning their discontinuance of the Aesculapian Award for scientific exhibits after 1968 was reviewed for the information of the committee.

A letter from Televised Medicine Inc. offering to conduct without cost to the association closed circuit television reporting on the convention to the various hotels in Fort Wayne was reviewed and upon motion of Drs. Steen and Corcoran, this matter was referred to the Council with the recommendation that it be approved.

A letter from Dr. William R. Clark concerning the orientation meeting during the convention was reviewed and upon motion of Drs. Steen and Corcoran, it was voted to commend Dr. Clark and his committee and to advise him to proceed with his plans and to report the same to the Council.

Governmental Medical Programs

A report from Dr. John Paris concerning actions taken by the Ohio Valley Regional Medical Program group was reviewed for the information of the committee.

A bulletin from the Division of Regional Medical Programs was reviewed for the information of the committee, as was the statement on actuarial assumptions.

Journal

The secretary reported he had been visited by representatives of the pharmaceutical detail men's organization concerning carrying their names, addresses and telephone numbers in the roster issue of *The Journal*, and that they would be willing to pay for this. The secretary made the recommendation that the payment be returned to the scholarship fund of the

organization of detail men. The secretary's recommendation was approved by consent.

The request of a non-medical student to subscribe to *The Journal* was turned down on motion of Drs. Steen and Kintner. The student is to be informed that copies of *The Journal* are probably available in his school library.

A letter from the State Medical Journal Advertising Bureau concerning increasing rates was deferred pending Dr. Ramsey's opinion, on motion of Drs. Steen and Hoyt.

A letter from Dr. Marvin Priddy concerning an article to be published in *The Journal* was read. The secretary was ordered to distribute copies of this article to the Executive Committee and to defer action until the next meeting.

New Business

An exchange of correspondence between the executive secretary and the Ohio Department of Public Welfare concerning Civil Rights certification was reviewed for the information of the committee.

Decision on the proposal for a series of television shows to be sponsored by Blue Cross-Blue Shield was deferred until the next meeting.

Future Meetings

On motion of Drs. Steen and Larson, Dr. Everly is to represent the association at the meeting of the Indiana Public Health Association on March 13 in Indianapolis.

An invitation to send representatives to the 14th Annual Conference of State Medical Society Mental Health Representatives in Chicago, March 15 and 16, 1968, was turned down by consent.

An invitation for the executive secretary and the director of Public Relations to attend the Blue Shield Public Relations Conference in Chicago, March 20 and 21, 1968, at Blue Shield expense was approved by consent.

Third National Conference on Health Education of the Public, Chicago, April 4-6, 1968. By consent it was approved that the chairman of the Commission on Public Information be sent, or a representative selected by him.

AMA Regional Conference on Disaster Medical Care, Durham, North Carolina, April 5 and 6, 1968. Dr. Lowell J. Hillis is to be asked to attend this meeting as an Indiana representative.

It was agreed that Dr. Corcoran will represent the association at the Ohio State Medical Association meeting, to be held in Cincinnati, May 13-17, 1968.

Dr. Larson will represent the association at the meeting of the State Medical Society of Wisconsin, May 14-16 in Milwaukee, and at the Illinois State Medical Society meeting.

There being no further business the committee adjourned to meet at 9:00 a.m., EST, on April 7, 1968, at the Headquarters Building. ◄

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The doctors of the U.S.A. are being asked to send their medical journals—after they have read them — to colleagues overseas (Asia, Latin America, and Africa) who wish to have access to current medical literature but, either because of currency regulations or actual cost involved, cannot themselves subscribe to medical periodicals. We can supply you with the name, address, and medical specialty of doctors in these areas who would be happy to receive these much wanted journals, *(particularly specialty journals),* which you will mail direct to your overseas colleague.

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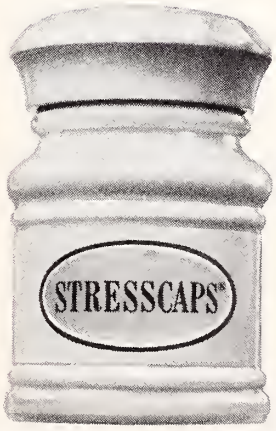

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Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

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(1) Siver, R. H.: CMD, *21*:109, September 1954. (2) Frykman, H. H.: Minn. Med., *38*:19-27, January 1955. (3) McGivney, J.: Tex. State Jour. Med., *51*:16-18, January 1955. (4) Quehl, T. M.: Jour. of Florida Acad. Gen. Prac., *15*:15-16, October 1965. (5) Weekes, D. J.: N.Y. State Jour. Med., *58*:2672-2673, August 1958. (6) Weekes, D. J.: EENT Digest, *25*:47-59, December 1963. (7) Abbott, P. L.: Jour. Oral Surg., Anes., & Hosp. Dental Serv., 310-312, July 1961. (8) Rapoport, L. and Levine, W. I.: Oral Surg., Oral Med. & Oral Path., *20*:591-593, November 1965.

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JUNE 1968

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Illustrations are desirable. Selection of illustrations submitted at discretion of editor and editorial board members.

Contributors are responsible for all statements made in their articles. The editors and editorial board members may not be in agreement with all views expressed by authors, but it is desired to give all authors as great latitude as possible.

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Precautions—Overgrowth of nonsusceptible organisms may occur. Constant observation is essential. If new infections appear, appropriate measures should be taken. In infants, increased intracranial pressure with bulging fontanels has been observed. All signs and symptoms have disappeared rapidly upon cessation of treatment.

Side Effects—Gastrointestinal system—anorexia, nausea, vomiting, diarrhea, stomatitis, glossitis, enterocolitis, pruritus ani. Skin—maculopapular and erythematous rashes; a rare case of exfoliative dermatitis has been reported. Photosensitivity; onycholysis and discoloration of the nails (rare). Kidney—rise in BUN, apparently dose related. Transient increase in urinary output, sometimes accompanied by thirst (rare). Hypersensitivity reactions—urticaria, angioneurotic edema, anaphylaxis. Teeth—dental staining (yellow-brown) in children of mothers given this drug during the latter half of pregnancy, and in children given the drug during the neonatal period, infancy and early childhood. Enamel hypoplasia has been seen in a few children. If adverse reaction or idiosyncrasy occurs, discontinue medication and institute appropriate therapy.

Average Adult Daily Dosage: 150 mg q.i.d. or 300 mg b.i.d. Should be given 1 hour before or 2 hours after meals, since absorption is impaired by the concomitant administration of high calcium content drugs, foods and some dairy products. Treatment of streptococcal infections should continue for 10 days, even though symptoms have subsided.

In the treatment of syphilis a dosage schedule of a total of 12 to 18 Gm given in equally divided doses over a period of 10 to 15 days should be followed. Close follow-up observation of the patient is recommended, including appropriate laboratory tests, since demethylchlortetracycline has not had adequate evaluation in all stages of syphilis. Spinal fluid examination should be included as part of this follow-up.

Acute gonococcal anterior urethritis in males has been treated effectively with a single dose of 600-900 mg of DECLOMYCIN Demethylchlortetracycline. Individuals unable to tolerate large single doses due to gastrointestinal side effects may be treated with 150 mg every 6 hours for a minimum of 4 doses or 300 mg every 12 hours for a minimum of 2 doses. Females should be treated with a dosage of 150 mg every 6 hours or 300 mg every 12 hours until a cure is effected.

Primary Atypical Pneumonia (Eaton Agent): The average adult daily dosage is 900 mg in 3 divided doses for six days.

LEDERLE LABORATORIES, A Division of American Cyanamid Company, Pearl River, N.Y.

Lederle

379-8

THE INDIANA STATE MEDICAL ASSOCIATION

3935 N. Meridian, Indianapolis 46208—Telephone 925-7545

ANNUAL CONVENTION—OCTOBER 15-18, 1968—FORT WAYNE

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4—Rabert M. Reid, Calumbus	Oct. 1968
5—Wilbert McIntosh, Riley	Oct. 1969
6—Stephen D. Smith, Knightstawn	Oct. 1970
7—Albert M. Danata, Indianapalis	Oct. 1968
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13—Otis R. Bawen, Bremen	Oct. 1968

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District	Term Expires
1—	
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3—Elmer L. Wallace, New Albany	1968
4—Jack E. Shields, Brownstawn	1970
5—Clean M. Schauwecker, Greencastle	1970
6—Frank Green, Rushville	1969
7—Jahn O. Butler, Indianapalis	1969
8—Paul Sparks, Winchester	1970
9—Clarence G. Kern, Lebanan	1968
10—Herman Wing, Gary	1969
11—James A. Harshman, Kakama	1968
12—Frederic L. Schaen, Fart Wayne	1970
13—Gearge B. Gattman, Elkhart	1970

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Frank H. Green, Rushville	Kenneth O. Neumann, Lafayette

Terms expire December 31, 1969:

Delegates	Alternates
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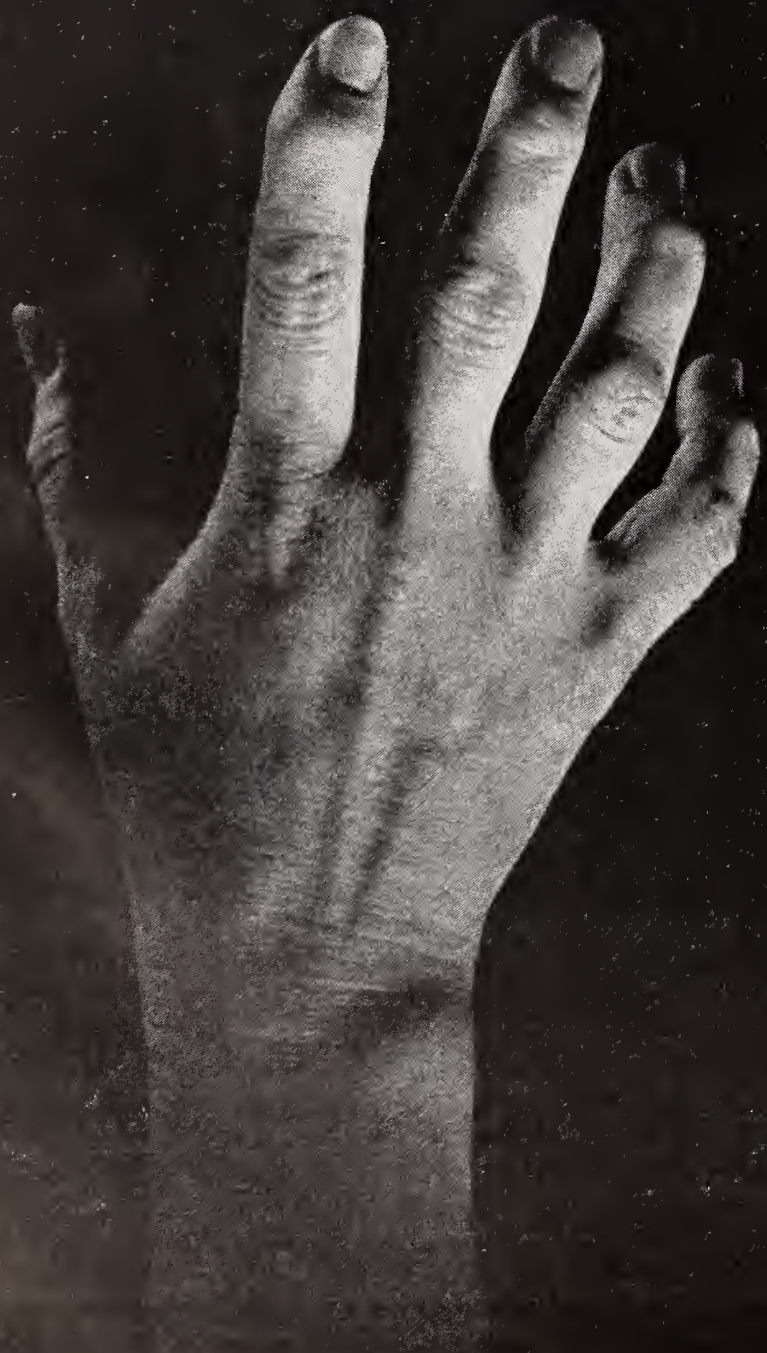
Jack E. Shields, Brownstown	Dwight W. Schuster, Indianapalis

Butazolidin® alka in rheumatoid arthritis.

If it doesn't work in a week, forget it.



But don't forget this about Butazolidin alka

Contraindications: Edema; danger of cardiac decompensation; history or symptoms of peptic ulcer; renal, hepatic or cardiac damage; history of drug allergy; history of blood dyscrasia. The drug should not be given when the patient is senile or when other potent drugs are given concurrently. Large doses of Butazolidin alka are contraindicated in glaucoma.

Warning: If coumarin-type anticoagulants are given simultaneously, watch for excessive increase in prothrombin time. Instances of severe bleeding have occurred. Persistent or severe dyspepsia may indicate peptic ulcer; perform upper gastrointestinal x-ray diagnostic tests if drug is continued. Pyrazole compounds may potentiate the pharmacologic action of sulfonylurea, sulfonamide-type agents and insulin. Carefully observe patients receiving such therapy. Use with caution in the first trimester of pregnancy and in patients with thyroid disease.

Precautions: Before prescribing, carefully select patients, avoiding those responsive to routine measures as well as contraindicated patients. Obtain a detailed history and a complete physical and laboratory examination, including a blood count. The patient should not exceed recommended dosage, should be closely supervised and should be warned to discontinue the drug and report immediately if fever, sore throat, or mouth lesions (symptoms of blood dyscrasia); sudden weight gain (water retention); skin reactions; black or tarry stools or other evidence of intestinal hemorrhage occur. Make complete blood counts at weekly intervals during early therapy and at 2-week intervals thereafter. Discontinue the drug immediately and institute countermeasures if the white count changes significantly, granulocytes decrease, or immature forms appear. Use greater care in the elderly and in hypertensives.

Adverse Reactions: The more common are nausea and edema. Swelling of the ankles or face may be minimized by withholding dietary salt, reduction in dosage or use of diuretics. In elderly patients and in those with hypertension the drug should be discontinued with the appearance of edema. The drug has been associated with peptic ulcer and may reactivate a latent peptic ulcer. The patient should be instructed to take doses immediately before or after meals or with milk to minimize gastric upset. Drug rash occasionally occurs. If it does, promptly discontinue the drug. Agranulocytosis, exfoliative dermatitis, Stevens-Johnson syndrome, Lyell's syndrome (toxic necrotizing epidermolysis), or a generalized allergic reaction similar to serum sickness may occur and require permanent withdrawal of medication. Agranulocytosis can occur suddenly in spite of regular, repeated normal white counts. Stomatitis, salivary gland enlargement, vomiting, vertigo and languor may occur. Leukemia and leukemoid reactions have been reported. While not definitely attributable to the drug, a causal relationship cannot be excluded. Thrombocytopenic purpura and aplastic anemia may occur. Confusional states, agitation, headache, blurred vision, optic neuritis and transient hearing loss have been reported, as have hyperglycemia, hepatitis, jaundice, hypersensitivity angiitis, pericarditis and several cases of anuria and hematuria. With long-term use, reversible thyroid hyperplasia may occur infrequently. Moderate lowering of the red cell count due to hemodilution may occur.

Dosage in Rheumatoid Arthritis: Initial: 3 to 6 capsules daily in 3 or 4 equal doses. Trial period: 1 week. Maintenance dosage should not exceed 4 capsules daily; response is often achieved with 1 or 2 capsules daily.

In selecting appropriate dosage in any specific case, consideration should be given to the patient's weight, general health, age and any other factors influencing drug response. (B)46-070-A

For complete details, please see full Prescribing Information.

Butazolidin® alka Geigy

Capsules
phenylbutazone, 100 mg.; dried aluminum hydroxide gel, 100 mg.; magnesium trisilicate, 150 mg.; homatropine methylbromide, 1.25 mg.

Geigy Pharmaceuticals
Division of Geigy Chemical Corporation
Ardsley, New York 10502

BU 5463 R

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Enduron: (methyclothiazide) A basic building block for mild hypertensives

Excellent day-long Na^+ output, yet easy on the K^+

Enduron provides an excellent starting therapy. Your patient's sodium excretion is greatly enhanced. Yet potassium loss is low.

The therapeutic action is smooth, and persists for a full 24 hours. With Enduron you can prescribe convenient once-a-day dosage without skimping your patients on day-long thiazide effectiveness.

Of course, as with all thiazides, supplemental dietary potassium should also be considered.

Use Enduron as a basic therapy in patients with mild to moderate hypertension. A single 5-mg. tablet each day is ample in most cases.

Once a day, every day

ENDURON®

METHYCLOTHIAZIDE

MILD TO MODERATE TO SEVERE

See Brief Summary on final page of advertisement

Enduronyl: Its deserpidine component adds response in moderate hypertension

Less frequent rauwolfia side effects than with reserpine

When you wish to build further response, consider shifting to Enduronyl.

Enduronyl adds a building block of *deserpidine*. This is a purified rauwolfia alkaloid available only from Abbott. It adds good antihypertensive and tranquilizing activity. Yet its incidence of untoward effects, particularly lethargy and depression, is lower than with reserpine.

Enduronyl is available plain or Forte. The latter provides its variation where most helpful, by doubling the deserpidine.

Use Enduronyl for patients throughout the broad range of mild to moderately severe hypertension.

Once a day, every day

ENDURONYL®

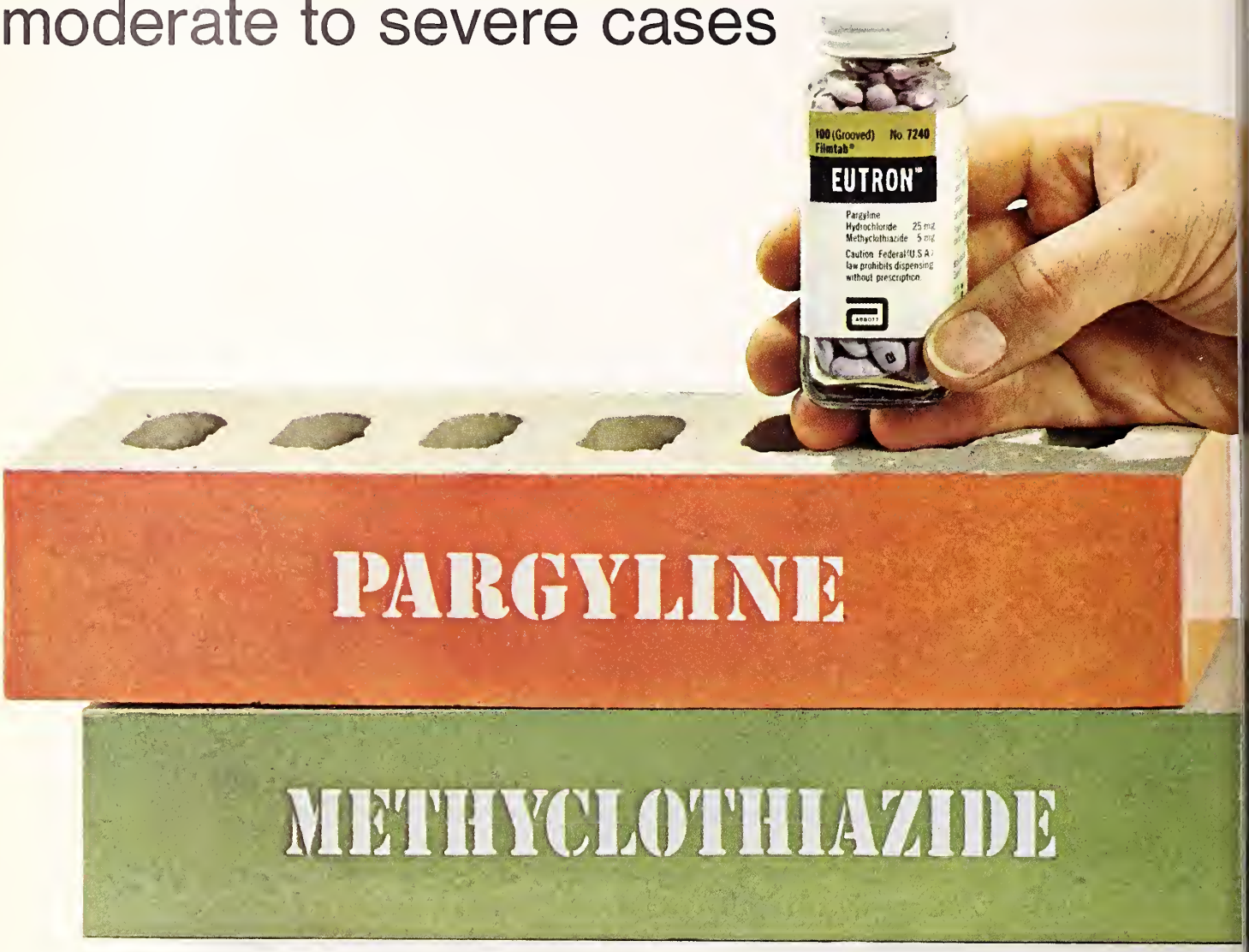
METHYCLOTHIAZIDE 5 mg. with DESERPIDINE 0.25 mg. or (FORTE) 0.5 mg.

MILD TO MODERATE TO SEVERE

See Brief Summary on final page of advertisement

801094

Eutron: A unique combination for handling moderate to severe cases



Affords almost uniform diastolic reduction in all body positions

Eutron lowers diastolic pressures nearly equally, whether your patient is standing up or lying down.

Thus, in clinical trials, average *standing* diastolic readings were reduced from 112 pre-treatment to 90 post-treatment; *sitting* from 115 to 95; and *recumbent* from 112 to 94.

Note that following Eutron, the diastolic reductions were nearly alike in all three body positions.

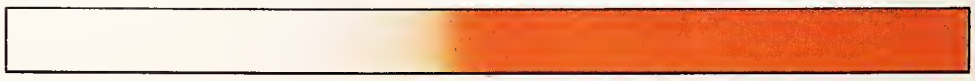
Use Eutron for managing your moderate to severe cases. Its building blocks enhance each other; hence lesser doses often suffice.

Once a day, every day

EUTRON™

PARGYLINE HYDROCHLORIDE 25 mg.
with METHYCLOTHIAZIDE 5 mg.

MILD TO MODERATE TO SEVERE



See Brief Summary on final page of advertisement

801094

ENDURON® | ENDURONYL®

METHYCLOTHIAZIDE

Each tablet contains Methyclothiazide 5 mg. with Deserpidine 0.25 mg. or 0.5 mg.

Indications: Edema and mild to moderate hypertension (Enduron), and mild to moderately severe hypertension (Enduronyl). More potent agents, if added, can be given at reduced dosage.

Contraindications: Sensitivity to thiazides; severe renal disease (except nephrosis) or shutdown; severe hepatic disease or impending hepatic coma (hepatic coma due to hypokalemia has been reported in patients on thiazides). Do not use Enduronyl in severe mental depression, suicidal tendencies, active peptic ulcer, or ulcerative colitis.

Warnings: Consider possible sensitivity where there is history of allergy or asthma. If added potassium is indicated, dietary supplementation is recommended. Reserve enteric-coated potassium tablets for cautious use only when necessary, as they may induce serious or fatal small bowel lesions (stenosis with or without ulceration), cause obstruction, hemorrhage, and perforation often requiring surgery; discontinue them immediately if abdominal pain, distention, nausea, vomiting, or g.i. bleeding occurs. Neither Enduron nor Enduronyl contains added potassium.

Precautions: Use thiazides cautiously in severe renal dysfunction, impaired hepatic function or progressive liver disease; also in pregnancy (bone marrow depression, thrombocytopenia, and altered carbohydrate metabolism have been reported in certain newborn). In surgery, thiazides may reduce response to vasopressors, and increase response to tubocurarine. Antihypertensive response may be enhanced following sympathectomy. Watch for electrolyte imbalance (e.g., hyponatremia) in all patients. In hypokalemia (especially in digitalized patients) give supplemental potassium. In hypochloremic alkalosis, give supplemental chloride.

Use rauwolfias with caution in patients with history of peptic ulcer. Rauwolfias with anesthetics may produce hypotension and bradycardia. Discontinue Enduronyl two weeks before elective surgery. Consider vagal blocking agents during emergency surgery. In epilepsy, adjust anticonvulsant dosage. In electroshock, shorten stimulus strength and duration. In occasional patients with depressive tendencies, rauwolfias may precipitate severe mental depression that usually disappears when drug is stopped.

Adverse Reactions: Thiazide reaction include blood dyscrasias (thrombocytopenia with purpura, agranulocytosis, aplastic anemia); elevation of BUN, serum uric acid or blood sugar; anorexia, nausea, vomiting, diarrhea, headache, dizziness, paresthesia, weakness, skin rash, photosensitivity, jaundice, symtomatic gout, and pancreatitis. Cutaneous vasculitis in the elderly has been reported with other thiazides. Adverse effects with deserpidine are qualitatively similar to those with reserpine, but their incidence is lower. These include nasal stuffiness, abdominal cramps or diarrhea, nausea, headache, weight gain, reduced libido and potency, peptic ulcer aggravation, epistaxis, skin eruption, asthma in susceptible patients, electrolyte imbalance, excessive salivation, and a reversible Parkinson's syndrome. Excessive drowsiness, fatigue, weakness, and nightmares may signal mental depression. Thrombocytopenia, purpura, and a symptom manifested by dull sensorium, deafness, uveitis, glaucoma, and optic atrophy are rare allergic reactions to other rauwolfias. Hypotension from antihypertensive agents may precipitate angina attacks in susceptible individuals. Usually adverse reactions disappear when drug is withdrawn.

EUTRON™

Each tablet contains Pargyline Hydrochloride 25 mg. with Methyclothiazide 5 mg.

Indications—Moderate to severe hypertension.

Contraindications—Pheochromocytoma, paranoid schizophrenia, hyperthyroidism and advanced renal failure. Not recommended in malignant hypertension, children under 12, pregnant patients.

Do not use with: centrally or peripherally acting sympathomimetic drugs; foods high in tyramine (e.g., aged and natural cheeses); parenteral reserpine or guanethidine; imipramine, amitriptyline, desipramine, nortriptyline or their analogues; other monoamine oxidase inhibitors; methyldopa or dopamine; separate Eutron and these agents by two weeks.

Sensitivity to thiazides; severe renal disease (except nephrosis) or shutdown; severe hepatic disease; impending hepatic coma from thiazide-induced hypokalemia.

Warnings—Patients: 1. No other drugs (particularly "cold preparations" and antihistamines), cheese or alcohol without physician's consent. 2. Promptly report orthostatic symptoms, severe headache, other unusual symptoms. 3. Angina pectoris or coronary artery disease patients must not increase physical activity with improved anginal symptoms or well-being.

Physicians: 1. Use antihistamines, hypnotics, sedatives, tranquilizers and narcotics (meperidine contraindicated) cautiously in reduced doses. 2. Stop Eutron two or more weeks before elective surgery; in emergency surgery reduce premedication (narcotics, sedatives, analgesics, etc.) to 1/4 to 1/5; carefully adjust anesthetic dosage to patient response. 3. Use cautiously in advanced renal failure. 4. Pargyline may induce hypoglycemia. 5. Consider possible sensitivity reactions when a history of allergy or asthma is present. 6. If potassium is indicated, dietary supplement is recommended; enteric-coated potassium tablets may induce serious or fatal small bowel lesions (stenosis with or without ulceration), cause obstruction, hemorrhage, and perforation frequently requiring surgery; discontinue medication immediately if abdominal pain, distention, nausea, vomiting or gastrointestinal bleeding occurs; Eutron does not contain added potassium. 7. Possible systemic lupus erythematosus has been reported for thiazides.

Precautions—Pargyline: Use cautiously at reduced dosage: caffeine, alcohol, antihistamines, barbiturates, chloral hydrate, other hypnotics, sedatives, tranquilizers, narcotics. Periodically do urinalyses, blood counts, liver function tests, etc. Use with caution in liver disease. Watch for orthostatic hypotension, especially in impaired circulation (e.g., angina pectoris, coronary artery disease, cerebral arteriosclerosis); also, augmented hypotension in concomitant febrile illnesses. Reduce or discontinue if hypotension is severe. In impaired renal function watch for cumulative drug effects, elevated BUN and other evidence of progressive renal failure; withdraw drug if these persist. In surgery increased central depressant response (hypotension and increased sedative effect) can be controlled by (1) discontinuing at least two weeks prior; (2) in emergency surgery lowering dose of premedication; (3) when necessary, administering a vasopressor. Do not use in hyperactive and hyperexcitable patients. Pargyline may unmask severe psychotic symptoms where emotional problems pre-exist. Use cautiously in Parkinsonism, especially with antiparkinsonian agents. In prolonged therapy, examine for change in color perception, visual fields, fundi and visual acuity. Also, prolonged therapy has made certain patients refractory to nerve blocking effects of local anesthetics.

Methyclothiazide: Use cautiously in severe renal dysfunction, impaired hepatic function or progressive liver disease; also in pregnancy (bone marrow depression, thrombocytopenia, and altered carbohydrate metabolism have been reported in certain newborn). In surgery thiazide may reduce vasopressor response and increase tubocurarine response. Antihypertensive response may be enhanced following sympathectomy. Watch for electrolyte imbalance (e.g., hyponatremia). Give supplemental chloride if hypochloremic alkalosis occurs and supplemental potassium if hypokalemia occurs (especially in digitalized patients). Thiazides may decrease serum P.B.I. without signs of thyroid disturbance.

Adverse Reactions — Pargyline: Orthostatic hypotension and associated symptoms, mild constipation, fluid retention, edema, dry mouth, sweating, increased appetite, arthralgia, nausea, vomiting, headache, insomnia, difficult in micturition, nightmares, impotence, delayed ejaculation, rash, purpura, weight gain, hyperexcitability, increased neuromuscular activity and other extrapyramidal symptoms. Drug fever is extremely rare. Reduction in blood sugar and hypoglycemic effects are possible. Congestive heart failure has been reported in a few patients with reduced cardiac reserve.

Methyclothiazide: Blood dyscrasias (thrombocytopenia with purpura, agranulocytosis, aplastic anemia); elevation of BUN, blood sugar or serum uric acid (gout may be induced); anorexia, nausea, vomiting, diarrhea, headache, dizziness, paresthesia, weakness, skin rash, photosensitivity, jaundice and pancreatitis. Cutaneous vasculitis in elderly patients has been reported with other thiazides.

If side effects are severe or persist, reduce dosage or withdraw drug. 804438R

ABBOTT

TM-TRADEMARK

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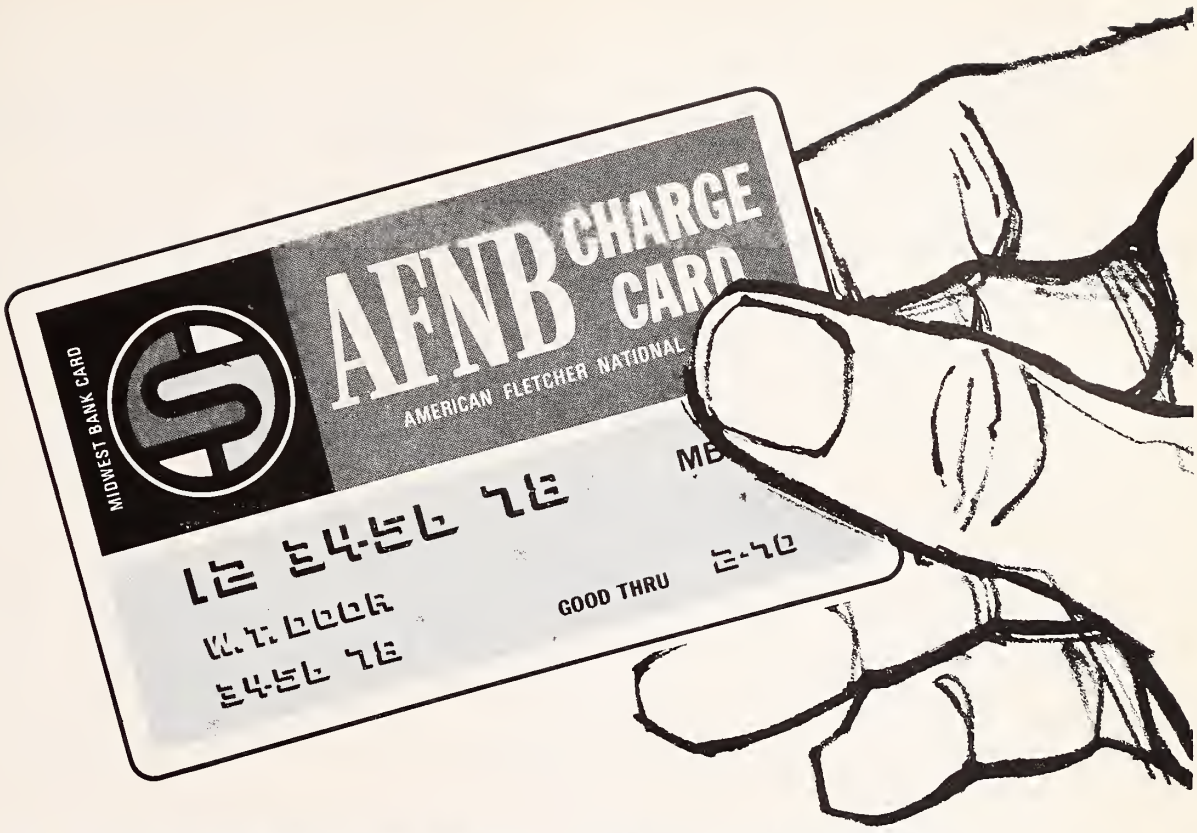
2.		J. S. Brown, Carlisle	
3.	Daniel H. Cannon, New Albany	Elmer L. Wallace, New Albany	April 2, 1969, New Albany
4.	Bill E. Freeland, Batesville	William J. Warn, Milan	
5.	Jack Somerville, Clinton	Milton Herzberg, Clinton	
6.	Paul Inlow, Shelbyville	Perry Seal, Brookville	
7.	John O. Butler, Indianapolis	Donald E. Stephens, Indianapolis	
8.	William Stinson, Anderson	Charles R. King, Anderson	
9.	Martin Dickerson, Monticello	M. Ali Jehanyar, Monticello	May 22, 1969, Lafayette
10.	John J. Reed, Hobart	Raymond Doherty, Crown Point	
11.	Charles Wise, Camden	Fred Poehler, La Fontaine	September 18, 1968, Delphi
12.	Kenneth F. Isenogle, Fort Wayne	John J. Hartman, Angola	May 21, 1969, Fort Wayne
13.	E. C. Mueller, LaPorte	John Hildebrand, South Bend	September 18, 1968



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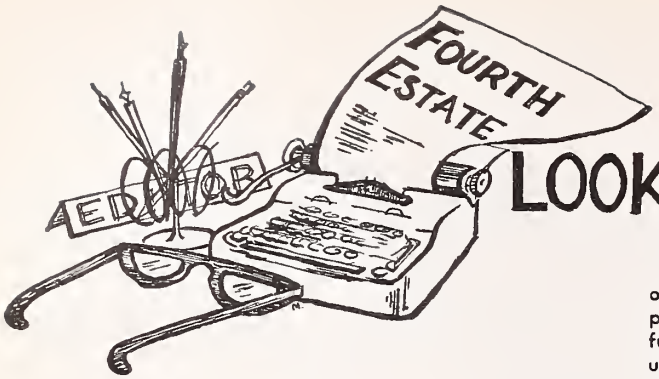

LOOKS AT MEDICINE

This section of THE JOURNAL is devoted to the presentation of opinions which appear on the editorial pages of the public press, and which are of interest to the medical profession. Its function is to review comments which may be favorable or unfavorable to medicine. Members are invited to submit editorial clippings for this column.

Indiana University — Indianapolis

Indiana University President Elvis Stahr has recommended to the university board of trustees a major administrative reorganization. His plan calls for three separate units of Indiana University, under a central administration, which would move gradually toward academic autonomy. These 3 units are the Bloomington campus, a new Indiana University-Indianapolis complex (I.U.I.), and five regional campuses.

Under this decentralized plan the central administration of the university would be responsible for planning, budgeting and other all-university functions. A vice-president would be responsible for the regional campuses. The Indianapolis and Bloomington campuses would have their own chancellors.

That would mean that all the units of the university in this city would be combined for the first time under the leadership of one administrator. He would be responsible for the university's undergraduate, graduate and professional schools.

The objectives of this reorganization plan are greater efficiency and effectiveness. In his report to the trustees. Dr. Stahr explained that while I.U.'s regional campuses have shown dramatic growth, most academic policy-making and administrative work are still being handled on the Bloomington campus. The new decentralization is designed to avoid the delays and irritations which the present system has caused on the other university campuses around the state.

We believe this new set-up would operate greatly to the advantage of Indianapolis. Attainment of equal status with Bloomington would lift the new I.U.I. permanently out of the stepchild category. An outstanding chancellor could push rapidly forward on the objectives which Dr. Stahr stressed for the Indianapolis campus. These include the stepped-up development of a joint campus in the Medical Center area; and the development of graduate, postgraduate and research programs closely tied to the needs and resources of the Indianapolis industrial and business community. He also stressed the importance of improving existing professional schools and developing both four-year undergraduate programs and special programs in vocational training and other areas.

It's too soon to tell whether this administrative reorganization gives Indianapolis the major state university it has lacked. But it appears to be a step in that direction. We hope the I.U. board of trustees will approve Dr. Stahr's plan at its meeting next month and will launch an immediate search for a chancellor for I.U.I.—*Editorial presented by the WFBM Stations*, April 22, 1968.

For More Doctors

Two of the nation's leading medical groups, the American Medical Association and the Association of American Medical Colleges, have sounded a call for more doctors.

They see a need for a 20% increase in the number of medical students in the next five years and a 40% rise in medical school capacity over the next 25 years.

Last year the nation's medical schools accepted 9,200 of 20,000 applicants. While some did not meet the requirements, many were rejected because the schools were not large enough to accommodate them.

The doctor shortage worsens at a time of unprecedented demand for their services, mainly stemming from such intrusions as medicare. Many rural communities have no physicians at all.

Numerous public institutions are manned by unlicensed foreign doctors, unable to meet American medical standards.

The Indiana Legislature has already appropriated more money for additional M.D. training facilities to help alleviate the nationwide shortage.—*Warsaw Times-Union*, April 3, 1968.

Doctor Shortage A Growing Problem for the Nation

The shortage of doctors is a national problem of which every community will become increasingly aware. President Johnson mentioned it in his recent health message to Congress. The communities will become increasingly aware of the problem because it is not one which can

be solved quickly.

The shortage of doctors and other health personnel in this country has been a source of concern for years. Despite measures adopted by Congress to help remedy the situation, the results have been disappointing. The annual crop of medical school graduates, for example, rose only from 7,000 in 1955 to 7,400 in 1965, a rate about one-third that of the U.S. population increase during the same period.

A solution to the shortage involves more than a search for means of expanding enrollment in medical, nursing and related schools. It extends to steps that might be taken to shorten the long period of medical education, and to possible revision of curricula of medical schools.

Also under review are the effects which the current high degree of specialization in medical practice as well as the growing concentration on research are having on the supply of medical manpower required to meet the day-to-day medical needs of the general population. Fewer than two percent of today's medical school graduates enter general practice. More and more graduates are going into research or teaching or are working full time in industry or government. The proportion of physicians in private practice fell from 72% in 1950 to 63% in 1965.

The resulting shortage of doctors has been accentuated by the increased demand for medical services. Generally prosperous economic conditions, health insurance, and the institution of government programs such as medicare and medicaid all have created unprecedented pressure on doctors in the 1960s. Dr. Milford O. Rouse, president of the American Medical Association, recently said the capacity of the country's medical schools ought to be increased by 40% in the next 25 years. He advocated both expansion of the existing 94 medical schools and establishment of new schools.—*New Castle Courier Times,* March 23, 1968.

LSD Laws

The Denver Post

President Johnson's proposal to tighten the laws against the sale of LSD—and to punish possession also—is a wise and welcome one.

We do not know all that we ought to know about the effects of this drug, but we know enough to justify the government in keeping it an outlaw until more can be found out. The indications that LSD causes brain and chromosome damage are too serious to be ignored. The drug, at the very least, has contributed to damaged lives, and we need not wait for any more evidence to know that it is dangerous.

The sale of LSD is now a misdemeanor, and the President has proposed that it be made a felony with a more severe penalty. The possession of LSD is not now unlawful at all, and the President has proposed that possession be made a misdemeanor. We do not expect that the new penalties, in themselves, will bring any large victories in the war against LSD. Many who are willing to risk insanity by taking the drug will probably also be willing to risk long imprisonment.

But some people will be deterred; and when the danger of arrest is added to the growing stock of information about LSD's harmful effects, the use of the drug may steadily subside.

If President Johnson's call for more narcotics agents is heeded by Congress, the government will have better means of making new laws effective.

That the threat of punishment cannot succeed completely in stamping out undesirable human behavior is not a reason to dispense with punishment altogether. Punishment for murder and robbery have never completely stopped murder and robbery, but they have cut down the incidence.—*Indianapolis News,* March 15, 1968. ◄

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Mother loves to see kids eat. To her, food is health. Food is strength. Food is love.

It never crosses her mind that overweight children tend to become overweight adults. Or that all that love is going to be a problem someday.

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To help translate your concern into help for your patients, a portfolio of free materials and suggested diets is available. The diets are a realistic balance of the 4 food groups—meat, breads and cereals, fruits and vegetables and dairy foods. Diets you'd write yourself if you had the time. Take a minute and send for them.

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. . . According to Hirst, 40 per cent of mothers are rendered unfit by child bearing. In 1916, 63,000 births were reported in Indiana, therefore 25,000 of these women were, to a greater or less extent, unfitted to take up the duties of motherhood as a result of these injuries.

* * *

I had been taught, and prior to the beginning of the present year it has been my practice, to repair all lacerations of the perineum immediately after the termination of the third stage. This practice I carried out very religiously, but I found many of my cases returning, with results that were far from satisfactory. Primary healing had failed and secondary repair was necessary in a large number of them. I finally insisted that all of my patients, primarily repaired, should return at the end of six weeks for examination, at which time uterine involution and wound repair should be complete. In this large number examined, the same percentage showed unmistakable evidence of faulty healing.

In a few cases a repair was postponed for four or five days after delivery because of shock of prolonged or difficult labor. When repaired, the healing in these cases was rapid and primary union was the rule; in fact, I do not recall one of these cases requiring a secondary repair. The convalescent period was no longer, notwithstanding the fact that they had undergone long, tedious or difficult forceps deliveries. They felt well and strong and involution was complete at the end of six weeks . . . . Fred R. Clapp, M.D., South Bend, "The Repair of Birth Injuries," *JISMA*, June, 1918.

Easy on the Budget...
Easy on the Mother
Tablets & Elixir
For Iron Deficiency Anemia
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Now . . . a new
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from Warren-Teed

Magan®
(magnesium salicylate, W-T)

particularly offered for the management of those chronic arthritic and rheumatic patients with gastrointestinal intolerance to aspirin and other salicylates

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an alternate salicylate

pain relief comparable to aspirin

Magan may provide effective salicylate therapy for a substantial number of your patients who cannot tolerate other salicylates because of gastrointestinal irritation.

Magnesium salicylate is recognized as a safe and effective alternate to aspirin. A controlled clinical study showed Magan to be not significantly different from aspirin as an analgesic in the treatment of arthritic patients.[1]

Reports from a private practice experience study indicate that Magan was tolerated by a high percentage of patients judged by their physicians to be unable to take aspirin or other salicylates due to gastrointestinal intolerance.[2]

1. Stern, S.B.: Med. Times, Oct. 1967
2. Reports on 1200 patients, data in files, Warren-Teed Pharmaceuticals, Inc. 1966

(See next page for prescribing information)

A different salicylate structure—
with no coating, no buffering
and it is sodium free

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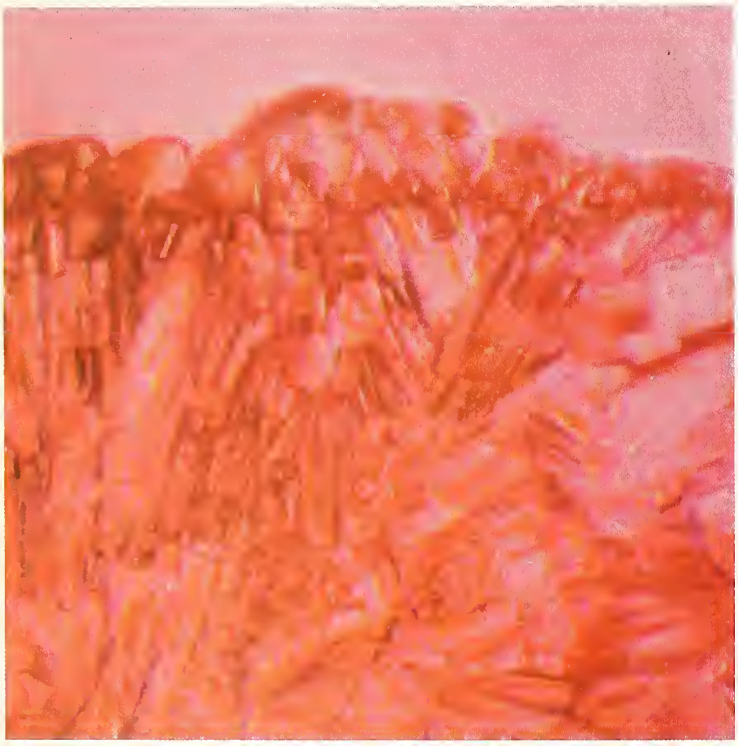
(Magnesium Salicylate, W-T)

microphotograph of magnesium salicylate crystals



Composition: Each orange-colored compressed tablet contains 5 grains (approximately 325 mg.) of magnesium salicylate, W-T (salicylic acid equivalent 75%).

Actions, Indications, Uses: The analgesic, anti-inflammatory, and antipyretic effects of MAGAN are similar to those of aspirin and other salicylates. Accordingly, MAGAN is indicated for the treatment of rheumatoid arthritis, osteoarthritis, nonarticular rheumatism such as bursitis, painful-shoulder syndrome, tendosynovitis, fibrositis, and other musculoskeletal disorders. The drug is also useful for the symptomatic relief of pain, aches, and discomfort of headache, neuralgia, minor injuries, dysmenorrhea, common cold and other minor infections of the respiratory tract. MAGAN (Magnesium Salicylate) may be tolerated by some persons intolerant to aspirin by reason of gastrointestinal irritation.

Contraindications: Because of the danger of hypermagnesemia, MAGAN is contraindicated in cases involving advanced chronic renal insufficiency. MAGAN, as other salicylates, may counteract the effect of uricosuric agents, and should not be prescribed for patients on such drugs.

Warning: As with all salicylates, high dosages of MAGAN should be avoided entirely or administered with caution to patients with liver damage, preexisting hypoprothrombinemia, vitamin K deficiency, and before surgery.

Adverse Reactions and Precautions: The same precautions applicable to salicylate therapy in general should be followed in prescribing MAGAN. Appropriate precautions should be taken in prescribing MAGAN for persons known to be sensitive to salicylates. If reaction develops, drug should be discontinued. Dosages of anticoagulants should be reduced with the administration of high dosage levels of MAGAN. *Impaired Renal Function:* Appropriate precautions should be taken in administering MAGAN to patients with any impairment of renal function including discontinuing other drugs containing magnesium and monitoring serum magnesium levels particularly if dosage levels of MAGAN are high. *Salicylate Poisoning:* Symptoms of salicylism, resulting from high doses of MAGAN, can be expected to resemble closely in character and intensity those associated with aspirin poisoning. These range from dizziness, drowsiness and ringing in the ears to vertigo, convulsions, coma and hypokalemia. Salicylate poisoning can be treated by intravenous fluids with sodium bicarbonate or lactate and potassium supplementation. In very severe cases, hemodialysis may be necessary. Vitamin K, 5-20 mg. orally or slowly i.v., usually restores the prothrombin time to normal.

Dosage: Adults 1 or 2 tablets every 4 hours as required with a full glass of water. In arthritis and other rheumatic conditions, higher doses may be used at the discretion of the physician. The experience with MAGAN in children is limited. The drug should not be used, therefore, for patients below 12 years until indications for use and dosage have been established.

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* * *

Polycillin (ampicillin trihydrate) by Bristol is celebrating another price reduction. Capsules in the 250 mg. and 500 mg. size and the oral suspension in the 125 mg. and 250 mg./5 ml. strengths will be from 10% to 20% less in cost.

* * *

A low-cost intermittent positive pressure breathing (IPPB) device has been introduced by Airco's Ohio Medical Products Division. Called the Hand-E-Vent, it costs less than a third of what conventional IPPB units do, and does not require the assistance of a technician for operation. The plastic components are heat-sterilizable. The unit may be used in the home, or is economical enough to allow a hospital to assign one to each patient who requires IPPB.

* * *

Glytel, Pfizer's blood glucose determination set, previously available in the 100-test set, is now put up in a larger size which will perform as many as 475 tests. Glytel has been widely accepted as an accurate and economical procedure. The new and larger set will reduce the cost per test and provide added convenience in use and storage.

* * *

A low dose oral contraceptive for sequential therapy, Norquen, has been introduced by Syntex. Norquen tablets provide an oral contraceptive regimen consisting of 14 white tablets (mestranol 0.08 mg.) followed by six blue tablets (norethindrone 2 mg. and mestranol 0.08 mg.). The new product has proven effective in extensive studies and a low incidence of side effects have been associated with it. Little weight change has been noted. Norquen tablets are packaged in strip packs. Norquen brings to three the number of oral contraceptives available from Syntex.

* * *

The fitting of prostheses immediately after lower extremity amputation is explained by a VA publication entitled "Immediate Postsurgical Prosthetics in the Management of Lower-Extremity Amputees." It is for sale at 45 cents per copy from the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402.

* * *

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Parepectolin for quick relief of acute diarrhea
...soothes colicky pain with paregoric*
...consolidates fluid stools with pectin
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In elderly patients it is particularly important to stop the diarrhea fast. Parepectolin helps you control diarrhea promptly and gain the patient's confidence until etiology has been determined.

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Each fluid ounce of creamy white suspension contains:
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Contains opium (¼ grain) 15 mg. per fluid ounce.
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Pectin ..... (2½ grains) 162 mg.
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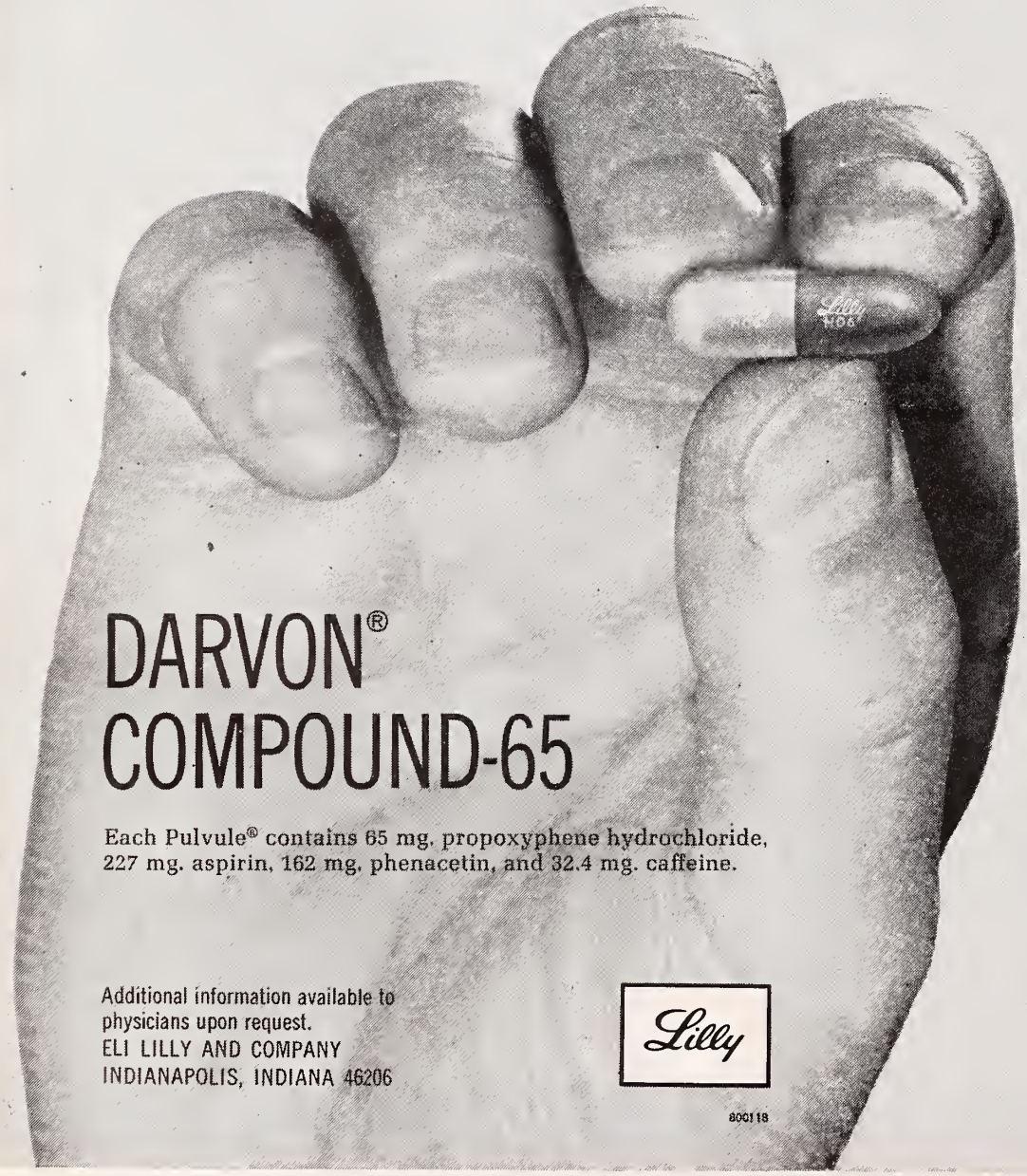

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Acute cholecystitis is dangerous to operate upon immediately because anomalies in the "critical triangle" may be obscured by edema. It is dangerous to treat it conservatively because of the danger of rupture and ascending cholangitis. Early operation, performed after correction of dehydration and electrolyte imbalance, is advocated—surgical safety is promoted by limiting the removal to partial cholecystectomy.

The Surgical Treatment of Acute Cholecystitis

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Indianapolis

JUNE 15, 1967, was the centenary of the first gallbladder operation, a cholecystotomy performed by John S. Bobbs, M.D. in his "dispensary" in Indianapolis, Indiana.[3,23] In honor of this event, we are privileged to review briefly the evolvement of gallbladder surgery and to discuss our method of the surgical management of patients with acute cholecystitis (especially in "older" people).

For about 14 years after Bobbs published his paper, surgeons debated the merits of "ideal" cholecystotomy (cholecystendesis) versus cholecystostomy. But physicians all over the world noted that patients who had drainage of the gallbladder alone were likely to have more trouble with stones, recurrent inflammations or hydrops. Therefore, 15 years later on July 15, 1882, Langenbuch[14] performed the first cholecystectomy. He stated, "A gallbladder containing stones is a diseased organ; its removal is essential."

As a word of caution Kehr[12] in 1913 described in detail the many congenital anomalies which may occur in the "critical triangle" formed by the cystic duct, cystic artery and the common bile duct. The incidence of congenital abnormal arrangements in this region were later verified by Flint.[7]

Although gallstones are the most common cause of acute cholecystitis, we know that the disease may occur without stones. This may be due to malignant tumor, fibrosis, anomalous cystic artery, reflux of pancreatic juice through a "common channel" or as part of viral or drug induced hepatitis.[11]

Surgery in Gallbladder Disease

There seems to have been general agreement between internists and surgeons during the past two decades concerning the necessity for surgery in a chronically diseased gallbladder. If there are no contraindications due to complicating factors, cholecystectomy is the operation of choice. However, during the past ten years, surgeons have had considerable discussion concerning the management of a patient with acute cholecystitis especially in "older" people. There are those observers who favor immediate cholecystectomy done in a classical way.[8-10,26] Others,[6,16,18,19,22] cite dangers and advise conservative management until clinical signs have subsided. Some of this group emphasize the hazards due to the anomalies which may be present, reporting a mortality for medical treatment alone of 5.50% and for all types of surgery 6.4%.[5,20]

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Conservative Management

Many authors prefer a "brief period of assessment," then cholecystectomy.[1,4] Strohl[24] thinks that patients must be individualized and in the old and debilitated, cholecystostomy may be indicated under local anesthesia. Cholecystostomy as an emergency measure is recommended by many surgeons, who then remove the gallbladder as an elective procedure later.

Patients with acute cholecystitis treated by medical management alone had a mortality of 6.3% and the deaths were due to a progression of biliary disease.[21] Lee[15] urges conservative management and avers that 98% will recover without emergency surgery. However, 86% of his 266 patients had cholecystectomy before leaving the hospital.

Immediate Surgery

Some surgeons[13] advocate immediate operation, with isolation of the cystic artery and duct, aspiration of the distended gallbladder, longitudinal incision with removal of stones and then retrograde cholecystectomy. Partial cholecystectomy by removing the unattached portion of the gallbladder and oversewing or cauterizing the remaining mucous membrane may leave stones in the cystic duct and result in reformation of the gallbladder.[22] Shannon[21] advises immediate operation; he has performed cholecystectomy in 80% of his patients. The mortality in 260 cases of acute cholecystitis treated by cholecystectomy was 6.1% and the deaths were due to cardiac, renal, or respiratory complications. Viori[25] states that in his 400 consecutive cases, 14% were acutely inflamed with a mortality of 1.3%. These patients died of myocardial infarction. Moreover, there were no more complications than in those patients having "conservative" treatment. McDonald [17] urges prompt operation to avoid perforation which (though rare) occurred in 20 of his patients with acute cholecystitis. Fourteen (70%) of these patients died.

The proponents of immediate surgery assume that (a) all biliary tract disease is surgical (b) an acute attack portends more trouble (c) if symptoms are severe enough for hospitalization, relief is more quickly obtained by surgery (d) the dangers of complications are no greater and actually less than the "wait and see" policy. Those who treat the disease conservatively do not concur.

We think that immediate surgery is indicated. However, we agree that fluid and electrolyte replacement is necessary and antibiotic therapy should be started. The operation should be tailored to fit the pathological changes and sometimes a "classical" cholecystectomy may be done safely. In most instances however, removal of the gallbladder in the usual manner is unsafe. Therefore, we perform what (for lack of a better term) we have called "subtotal cholecystectomy."

Materials and Methods

In 1945 one of the authors[2] produced cholecystitis in dogs by injecting concentrated bile into the gallbladder. Subsequently we tied the cystic duct about one millimeter from its junction with the common duct and removed the gallbladder. Due to intense inflammatory reaction, the measurement of the cystic duct was inexact. Many instances of sloughing occurred from edema, swelling, and necrosis of the duct proximal to the ligature—probably due to interference with the blood supply of the common duct. This was especially true when the cystic duct and artery were short or apparently absent. Fistulae, stenosis and occasionally peritonitis occurred but the dogs usually recovered. Re-exploration in long-term survivors also showed varying degrees of obstructive biliary cirrhosis even though the common duct was not greatly constricted.

Because of these experiments and reports of complications from classical cholecystectomy, we began the clinical application of "subtotal cholecystectomy" in the presence of acute cholecystitis. The technic and results of this procedure in a small series of cases done over the past ten years will be presented with a follow-up of all patients whom we could contact.

Symptoms and Signs

Pain was the predominant symptom in 92% of all patients.* Many complained primarily of one or many of the following disturbances: anorexia, nausea, vomiting, epigastric distention, excessive eructation with or without "heart burn", diarrhea with light stools, chills, fever and malaise.

We could elicit epigastric or right upper quadrant tenderness in 98%; and a mass was palpable in 30%. We should have been able to feel the gallbladder in more instances but this was difficult in obese individuals. Hypoactive bowel sounds were noted in 20% and no borborygmy were heard in 10%. The significant laboratory data are listed in Table I.

Surgical Technic

Patients with acute cholecystitis should have certain "screening" procedures which we have found helpful. These consist of the following studies: (1) We usually have postero-anterior and right lateral chest x-ray films (for right basilar atelectasis, pleural effusion and/or other abnormalities); (2) We also order a scout x-ray film of the abdomen in the upright position. This will often (but not always) show stones but more important it will disclose the liver shadow and possible free gas under the diaphragm or rarely in the gallbladder (emphysema); (3) We require a blood urea nitrogen, random blood sugar, electrocardiogram, serum electrolytes

* Symptoms have usually been present one or more days prior to admission to hospital.

SIGNIFICANT LABORATORY DATA

	Number	†Per Cent
WBC above 10,000	9	18
HTC below 40%	14	28
BUN above 15 mg.	5	10
BS above 120	4	8
Potassium below 3.5 mEq	10	20
ECG abnormal	6	12
X-ray of chest		
Blunting right costophrenic angle	4	8
Emphysema	6	12
Cholecystogram		
Visualized with stones	15	30
Non-visualizing	35	70

† Not statistically significant because of small sample size; may be valuable for extrapolation.

TABLE I

($Na+$, $K+$, $Ca+$, $Cl-$, Co_2-) as a rule; (4) The complete blood counts, hematocrit, coagulation time, and urinalysis are routine for all patients.

The next step in the treatment of these patients consists of fluid and electrolyte replacement (especially $K+$ in our experience) and blood if needed. We use antibiotics as a bacteriostatic cover. Presently, we are using Prostaphlin and Polycillin; or penicillin and streptomycin if there are no allergies.

Surgery is usually performed on the day of admission. Under good general anesthesia we use a right upper paramedian incision in linear type patients and a subcostal approach in broad brachymorphic obese patients.

The gallbladder is ordinarily covered by omentum and often adherent to the duodenum and sometimes the hepatic flexure of the colon. These are peeled off gently. The gall sac is usually tense, dark or purple in color with black patches. It will not tolerate clamping without rupture as a rule. Therefore bile or mucous is aspirated with a number 16 or number 18 needle and syringe. This material is sent to the laboratory for bacterial smear, culture and sensitivity tests (usually there is little or no bacterial growth). Next the gallbladder is split longitudinally between clamps. Suction is used to aspirate bile, pus and debris. The cystic duct is inspected from within the opened gallbladder and any stones present are extruded by external pressure or removed with a small scoop. If bile now exudes, the cystic duct is open; if not a small probe is introduced into its lumen to determine patency. We use a number one chromic catgut ligature on a swaged-on needle around the gallbladder neck which is frequently sacculated (Hartmann's pouch). Sometimes this sac is wide and must be sutured. This is safe insofar as injury to the common hepatic duct, cystic artery, and common duct because there is usually much edema with inflammatory changes which are misleading. The cystic artery may be occluded by thrombosis but is tied high on the gallbladder using a two zero silk ligature. This is usually identified enroute as the gallbladder is being removed. Subserous dissection may be difficult if the acute attack is superimposed on chronic disease; or conversely extremely easy due to the edema in early changes. The gallbladder bed is covered by the serosa if possible using a three zero chromic catgut running suture. Two penrose drains are inserted through a counter-incision.

Results

With this technic we have operated on over 50 consecutive cases of acute cholecystitis as identified by our pathologists. Ages varied between 24 and 76 with an average age of 42.6 years. The postoperative complications have been few and the long term follow-up (five years or more) has shown a recurrence of stones in the small neck of the gallbladder in only one instance (Table II). This man required a second operation three years after subtotal cholecystectomy.

COMPLICATIONS IN 50 CONSECUTIVE CASES OF ACUTE CHOLECYSTITIS TREATED BY "SUBTOTAL CHOLECYSTECTOMY"

	Number	†Per Cent
Deaths	0	0
Recurrence with stones	1	2
Superficial wound infection	1	2
Dehiscence in right paramedian incision	1	2
Dehiscence in subcostal incision	0	0
Subphrenic abscess*	1	2
Subhepatic abscess*	1	2
Transient jaundice	1	2

* Recovered after drainage.

† Not statistically significant because of small sample size; may be valuable for extrapolation.

TABLE II

In addition to the removal of an acute focus of infection there are other benefits to be derived such as: the early ability to ingest and metabolize food, relief of pain, avoiddance of possible rupture of the gallbladder, and a greatly shortened hospital stay (average 6-8 days) if there are no complications.

Summary

Early "subtotal cholecystectomy" is a safe and effective method of treating acute cholecystitis.

Acknowledgments

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Revised Warnings on Chloromycetin

CONTINUED widespread use of Chloromycetin (chloramphenicol) and the increasing sales of the drug, out of all proportion to the indications for which it is recommended, has prompted the Food and Drug Administration to again revise its labeling and to issue renewed warnings concerning its use.

Serious and/or fatal blood diseases which now include leukemia continue to complicate the clinical course of patients enough to warrant the recommendation that Chloromycetin should not be used except for specific indications such as typhoid fever or in infections by organisms which are known to be susceptible to the drug, and then only when no other safer antibiotic is effective.

With the general availability of numerous other antibiotic agents which are much more suitable, it is inadvisable to prescribe Chloromycetin for trivial infections, as a broad-spectrum agent or for prophylaxis against bacterial infections.

Baseline and periodic blood studies are essential during the period of administration. In patients with impaired liver or kidney function, blood concentration of the drug should be determined at appropriate intervals. It should not be given to pregnant women and extraordinary care should be exercised when it is prescribed for children.

The FDA has considered limiting the use of Chloromycetin to hospitalized patients, but does not favor this type of control since it might interfere with the treatment of typhoid fever in a rural setting where hospitals are not convenient.

Control measures, such as requiring two physician signatures on each prescription or the approval of a committee of physicians, have been suggested but considered unwise for obvious reasons.

Suggestions that Chloromycetin and other "dangerous" drugs be controlled by a system similar to that for narcotics have been advanced. This type of control is not considered appropriate or even workable since all drugs are dangerous at times. More detailed records for Chloromycetin have been proposed but not adopted because no amount of record keeping would by itself modify the prescribing standards.

All labeling and advertising for Chloromycetin in the future will carry detailed warnings. Side effects will be specified. All physicians and hospital administrators will receive a special FDA warning letter. It is important that the drug be used with caution. Continued use for inappropriate conditions may result in loss of a drug which is often life-saving in situations for which it is especially indicated.

ISMA Commission on Voluntary Health Agencies

THE recent annual conference of the Indiana Public Health Association furnished a splendid example of the constructive work of the ISMA Commission on Voluntary Health Agencies. This was the 22nd conference of the IPHA and the fourth in succession which has featured an important part of the speaking program devoted to the programs and activities of the Commission on Voluntary Health Agencies.

The half-day session was presided over by Dr. Norman R. Booher, chairman of the commission and was addressed by Brewster S. Miller, M.D., Medical Director and Research Director of the United Cerebral Palsy Associations; by Robert L. Yeager, M.D., President of the American Thoracic Society and member of the National Tuberculosis Association Board of Directors, and by Frank P. Lloyd, M.D., Director of Medical Research of the Methodist Hospital, Indianapolis.

The session was the first of the

day which was devoted to medicine and voluntary health, and had as its general topic "Overcoming Barriers to Health Care."

Participation in the Public Health Conference is but one of the commission activities, all of which serve to keep the medical profession informed on the many and varied and extremely useful programs of the voluntary agencies and which also provide the agencies with sources of professional advice and guidance when requested.

During the development of the voluntary program in Indiana, the commission formulated a set of principles for their own guidance, and with the help of the agencies has drawn up criteria for the evaluation of the many voluntary health agencies which are active in the state. During this process the commission also distributed a pamphlet "Suggested Guides for Medical Society Committees on Voluntary Health Agencies" and has urged each county medical society to form committees on voluntary health agencies.

The commission program has been helpful also in stimulating interest in and dispersing information about the voluntary health movement to practicing physicians. Each member of the commission "specializes" in one or more of the state's voluntary agencies and acts as special advisor upon request. Many commission members sit with or are members of the boards of directors of the voluntary agencies.

A recognition program has been established by the commission. Any of the agencies which has a statewide program may request recognition from ISMA. The individual agency programs are evaluated and studied annually for this purpose.

Once each year the ISMA commission meets with the principal officers of all voluntary health agencies and invites comments and constructive criticism. The result is said to be a mixture of about 20% criticism and 80% acclaim. The total effect is one of mutual benefit to the ISMA representatives and the health agencies, together with the origination of suggestions of advantage to both groups.

One of the best side effects of the symbiotic state in which the voluntary agencies and the commission do their work is the automatic association of the speakers bureaus of each of the organizations represented. All voluntary agencies are big on speakers bureaus and are able to supply the finest scientific speakers for all occasions and for all types of audiences.

Voluntary health agencies in Indiana are numerous, hard working and well organized. Both the membership of the agencies and the medical profession of the state are able to provide significant benefits to the general welfare through the cooperative and industrious working association which is made possible by the ISMA Commission on Voluntary Health Agencies.

Stricter Drug Legislation

"I personally believe it is time that the law be amended to require first, that every drug manufacturing establishment obtain a Federal license before beginning operations. I also believe that such a law should make it mandatory for the FDA to inspect every manufacturer *at least once every year* instead of the once-every-two-years required by the 1962 Kefauver-Harris Act.

"And second, I believe that henceforth a manufacturer should not be permitted to market a drug product — new or old — sold either under a generic or brandname until he has established the therapeutic effectiveness of his particular product by substantial clinical evidence or, when appropriate, by assays in man that demonstrate the biological availability of the active ingredients."

So said Mr. Walter A. Munns, Chairman of the Board of Directors of Smith Kline & French Laboratories, when he was addressing the annual meeting of the Pharmaceutical Manufacturers Association as its outgoing chairman.

Under the present law, anyone can legally start a drug manufacturing business and operate for two years before the Food and Drug Administration is legally required to inspect the plant and its operating procedures.

An enormous amount of inferior drug products could be made and distributed in two years. It is obvious that the proper procedure would be to require a license before manufacturing started. Certainly all new ventures into pharmaceutical work should be inspected annually, and better still every few months at the outset.

While the government attempts to establish generic drugs in general as a safe, effective, economical and preferred type of medication for all government patients, it is surprising that there has been very little testing of generic drugs for effectiveness. Some of the testing that has been done by makers of brandname products has shown the generic preparations to be lacking.

The Pharmaceutical Manufacturers Association has been for many years in favor of increasing the budget and staff of the FDA in order to increase the efficiency of the drug testing and inspecting functions of the government. Mr. Munns' recommedations for additional legal backing for such activities are compatable with PMA policies of long standing.

Editorial Notes . . .

Plastics are being adapted to hospital uses faster than knowledge of their properties is being acquired. The Hospital Bureau, organized in 1910 to promote economic and efficient purchasing practices by hospitals, is alerting its member hospitals to the possibility

of side effects, unwonted tissue reactions and incompatabilities with medications. There are more than 20 families of plastics utilized in hospital equipment. Many contain several modifying ingredients. The phrases "medical grade" and "hospital tested" are not necessarily reliable. The Food and Drug Administration has tested and approved some plastic materials for use as food containers, but this does not warrant their use for contact with the human body or for packaging pharmaceuticals.

The substance ultimately responsible for poisoning due to contact with poison ivy, oak and sumac is the same in each instance. The common irritating ingredient is urushiol. The Public Health Service has published a booklet which summarizes the practical knowledge of this type of poisoning. It is publication No. 1723. Single copies may be obtained free; additional copies are 5 cents each. Bulk orders are $3.50 for 100 copies. Write Information Office, National Institute of Allergy and Infectious Diseases, Bethesda, Maryland 20014.

The practice of medicine continues to be the preferred career choice for the nation's scholastic elite. Of the 10,779 semi-finalists in the National Merit Scholarship Program, 767 (seven percent) indicated medicine. One out of three chose medicine or some allied field. Dr. Milford O. Rouse, president of the AMA, has sent a persuasive letter and a copy of the handbook "Horizons Unlimited" to the large group. He also has sent another type of letter to the 3,221 students who indicated they were too undecided to name any specific career.

Farm machinery is noisy enough to cause permanent hearing loss. A person exposed to sound levels above 85 decibels for extended periods of time will likely suffer hearing loss. The University of Nebraska tested 55 tractors and 18 other types of equipment such as combines, power saws, hammer mills and corn pickers. The lowest decibel score for tractors was 97, the highest 114. Other equipment varied from 90 decibels to 113.5. It seems that farmers are working hard for poor pay and going deaf in the process.

PMA president C. Joseph Stetler recently attacked legislation which would oblige the government to provide reimbursement for drugs on a price list based on the cheapest generic product in each case. He said, "The measures would impose federal price controls on drugs for patients under government financed programs, favoring — not the best product — but the cheapest, with quality relegated to secondary consideration. And they would write into law the requirement that drugs of unidentified source be recognized as the equals of the best on the market — an approach which is unique in all the free world. Not even in Western nations, where medicine is socialized, is this kind of pharmaceutical dictatorship practiced."

False and misleading reports concerning the accuracy and reliability of clinical laboratory tests in U.S. hospitals have been circulating for the past two years. Faulty data were introduced into the Congressional Record by personnel of the Public Health Service to support a budget request for the National Laboratory Improvement Program. An overall error rate of 25% was claimed. An elaborately exaggerated and obviously erroneous statement of the errors and death rate for blood typing was included. Subsequent investigation by the College of American Pathologists finds that the reports, which purportedly referred to hospital laboratories, were based on the reports from unsupervised government laboratories, Indian Bureau hospitals, federal prisons and New York City laboratories. One reference was to work done entirely in a foreign country. The blood matching and transfusion figures were calculated in error to a gross extent and in addition were based on experiences of more than 20 years ago.

The hormonal state of pregnancy may afford protection against gastro-duodenal ulceration. Drs. Robert and Kelly, of The Upjohn Company, reported at the FASEB meeting that pregnant rats were very resistant to formation of steroid ulcers, continued their resistant state while nursing and lost it when the young were removed. Their hypothesis is strengthened by the clinical observation that preadolescents of both sexes are equally subject to ulcers, while women in the child-bearing period have one-fourth of the number of duodenal ulcers and one-half of gastric ulcers as men. After menopause the ulcer rate in women rises. The investigators are now inquiring into the incidence of ulcers in women taking oral contraceptives.

The relationship of alcoholism and cancer of the head and neck will be studied by the State University of New York under a grant by the Public Health Service. All alcoholics admitted to the Downstate Medical Center in Brooklyn will be investigated for metabolic deficiencies, abnormalities of electrolytes and all neoplastic disease, but especially that of the head and neck. The data obtained will be matched with control groups similar in characteristics except that the control patients will all be non-alcoholic.

Studies at Purdue have shown that the amounts of strontium 90 and iodine 131 in cow's milk is considerably less when the animal is pastured on crops grown with proper fertilization. Differences as much as 50%, below those found where the field was not fertilized, are reported. Apparently

the entry of the radionuclides into foliage is a function of time and the ranker growths take up less mineral because they grow faster.

Major medical insurance continues to be the fastest growing type of health coverage. Benefits have been above $1 billion for the last three years and last year the 61 million covered Americans received $1.5 billion in benefits. Because major medical covers medical expenses both in and out of the hospital, it is a big factor in getting patients home and thus reduces the tendency to overstay. Practically all policies operate on deductible and co-insurance principles.

In 1966, 26.9% of the U.S. interns and 29.8% of the residents were foreign-trained; that is—obtained their M.D. degrees in countries other than the United States or Canada. About 7% of them were native born U.S. citizens and about three percent were naturalized citizens. The remainder were citizens of foreign countries. Graduates of Philippine medical schools in internships and residencies numbered 3,517 or 25.7% of the entire foreign contingent. Graduates from India number 1,468 or 10.7%.

Titanium and zinc have been found in definite proportions in the cells of patients with certain malignancies. NASA Electronics Research and the Blood Research Institute of Boston use a highly accurate electron probe microanalyzer to determine the amount of the two elements in individual cells. Patients with lymphoblastic lymphoma, Hodgkin's disease or multiple myeloma had high ratios while normal patients and those with other diseases had much smaller amounts. The research is labeled as pure—so pure that no clinical conclusions are to be inferred. ◄

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President's Page

Every doctor gets one now and then—usually marked "For Your Clipping File." We've all been going at a pretty strong pace, so I have selected something which I hope will provoke a good laugh. That, alone, is good for the "digestion." I think that even the most expert dietitian might succumb to a smile. The author is unknown, but we will offer an apology to all food vendors. *Read after meals:*

"SOME LITTLE BUG"

In these days of indigestion
It is often times a question
As to what to eat and what to leave alone;
For each microbe and bacillus
Has a different way to kill us,
And in time they always claim us for their own.
There are germs of every kind
In any food that you can find
In the market or upon the bill of fare.
Drinking water is just as risky
As the so-called deadly whiskey,
And it's often a mistake to breathe the air.

Some little bug is going to find you some day,
Some little bug will creep behind you some day,
Then he'll send for his bug friends
And all your earthly trouble ends;
Some little bug is going to find you some day.

The inviting green cucumber
Gets most everybody's number,
While the green corn has a system of its own;
Though a radish seems nutritious
Its behavior is quite vicious,
And a doctor will be coming to your home.
Eating a lobster cooked or plain
Is only flirting with ptomaine,
While an oyster sometimes has a lot to say,
But the clams we eat in chowder
Make the angels chant the louder,
For they know that we'll be with them right away.

Take a slice of nice fried onion
And you're fit for Dr. Munyon,
Apple dumplings kill you quicker than a train,
Chew a cheesy midnight "rabbit"
And a grave you will soon inhabit—
Ah, to eat at all is such a foolish game.

When cold storage vaults I visit
I can only say what is it
Makes poor mortals fill their systems with such stuff?
Now, for breakfast, prunes are dandy
If a stomach pump is handy
And your doctor can be found quite soon enough.
Eat a plate of fine pigs' knuckles
And the headstone cutter chuckles,
While the gravedigger makes a note upon his cuff.
Eat that lovely red bologna
And you'll wear a wooden kimona,
As your relatives start scrapping 'bout your stuff.

Some little bug is going to find you some day,
Some little bug will creep behind you some day,
Eating juicy sliced pineapple
Makes the sexton dust the chapel;
Some little bug is going to find you some day.

G. O. Larson M.D.

Move to judgment Indiana National Bank trust officers can call on specialists in many areas to help solve complex financial problems. We offer the benefits of group judgment in all trust matters without unduly limiting the decision-making authority of our account officers.

TRUST DEPARTMENT/**THE INDIANA NATIONAL BANK**
OF INDIANAPOLIS

The Woman's Auxiliary

REPORTS TO ISMA

Excerpts from Inaugural Address of Mrs. S. Bruce Kephart Woman's Auxiliary to the Indiana State Medical Association, April 25, 1968 Installation Luncheon — the Marott Hotel

Members of the Auxiliary and Guests:

Some years ago as a new president came to this podium she was asked to give not an address but an acceptance speech. Please allow me to return to the less formal days (who says *all* change is progress?) and to do just that. . . .

I accept this gavel with humility that I may be able to wield it properly and well; with pride that you have so honored me by electing me to the presidency of the auxiliary; with the hope that each of you will have a wonderful year of auxiliary experiences as we strive together toward our goals.

I accept the gavel and see in its letters certain words. . . .

G — Goals . . . . . great things to be accomplished
A — Action . . . . . the only way to achievement
V — Vision . . . . . sparked with vitality
E — Expectancy . . . . . that brings energy to excel, to educate
L — Loyalty . . . . . laughter . . . . . and love

The real reason I am here is because you are *there*. True strength, power, loyalty and accomplishment belong only in the hands of each of you, each individual member. I congratulate each of you for being an outstanding medical wife, community leader, concerned person. From 2,800 people who might be here today, you are the ones who seized the opportunity to learn, to make new friends, to strengthen each other, to enjoy the fellowship of our gathering. I congratulate each of you for knowing how to choose the worthwhile and the good. And I commend to your keeping your dear friends who have consented this year to be the presidents and officers of your county auxiliaries. You are their inspiration, their strength, and their reward . . . without your promise of help they would never have said "yes" . . . and so, county presidents and officers, I congratulate you for your first step toward this gavel, for such it is. Each of you may someday stand here, a symbol as I am, of the individual auxiliary member who sees

G — Goals through
A — Action tempered by
V — Vision approach with
E — Expectancy to bring about God's kingdom of
L — Love.

All the members of the state organization are at your command. We are important only because we can be of help to you. We are a vital link between the national auxiliary and your counties where programs and projects come to life. We can provide you with general information, help suggest projects, channel educational material to you, help your program planning. But what the auxiliary does is strictly up to you county individuals and your medical society advisors. May you accomplish great things as we go forward together, pledging our loyalty and devotion to the Woman's Auxiliary to the Indiana State Medical Association, ever helping our husbands sustain the high ideals of their profession.

Betty Kephart

RECORD ANYWHERE - ANYTIME

PATIENT HISTORY (ELIMINATES WRITING — SEE MORE PATIENTS)

HOSPITAL ROUNDS

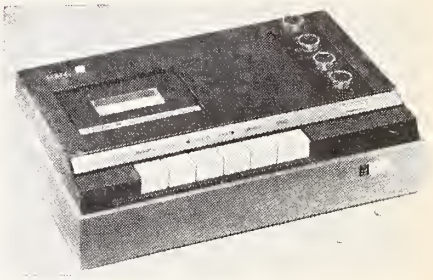
MEDICAL LECTURES-MEETINGS-CONVENTIONS

RECEIVE AND LISTEN TO LATEST MEDICAL BULLETINS & PROCEDURES

Norelco

TAPE RECORDERS

CONTINENTAL '450'
Professional quality stereo-mono/record-playback on handy compact cassettes that play for up to 2 hours. 2 matching satellite speakers in teak cabinets. Ideal for office music system or for the home. Offers unlimited recording and playback opportunities.



CONTINENTAL '350'
Famous Norelco quality. Solid state compact cassette loading. 2-track, mono record/playback. Up to 2 hours playing time. Dynamic omni-directional microphone. VU meter. Digital counter. Automatic record control. Pause control. New Sound Deflector over loudspeaker controls direction of sound. Fast forward/rewind. Ideal for office nurse or secretary for playback of messages.

CARRY — CORDER '150'

FOR THE ON-THE-GO PROFESSIONAL. Cassette loading, cordless. Up to 2 hours of high quality recording/playback per cassette. Capstan drive and constant speed, transistor regulated motor. Comes with cassette tape, dynamic microphone, fitted carrying case, and patch cord. Just push a single button and you record, playback, go fast forward or fast rewind. It's so easy, and so convenient.

ACCESSORIES

AC Adapter . . . Adapter cable . . . Car mount unit . . . Close talking mike . . . Foot control . . . Listening headset . . . Telephone pickup coil.

NO THREADING - NO WINDING - NO FUMBLING

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6101 N. Keystone Avenue,
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Phone 253-4261

ELECTRONIC SUPPLY OF ANDERSON, INC.,
2228 Columbus Avenue,
Anderson, Indiana
Phone 644-3381

GRAHAM ELECTRONICS SUPPLY, INC.,
Main Office and Warehouse,
122 S. Senate Avenue,
Indianapolis, Indiana
Phone 634-8486

FORT WAYNE ELECTRONICS SUPPLY, INC.,
3606 E. Maumee Avenue,
Fort Wayne, Indiana
Phone 742-4346

LAFAYETTE RADIO SUPPLY, INC.,
406-408 North Street,
Lafayette, Indiana
Phone 742-4006

MUNCIE ELECTRONICS SUPPLY, INC.,
222 North Madison Street,
Muncie, Indiana
Phone 288-8837

NORTHWEST MEDICAL PHARMACY
3500 Lafayette Rd.,
Indianapolis, Indiana

Dear Doctor:

Wouldn't you like your patients to learn more about the contributions made by the world of medicine to their welfare? So that they can better appreciate the efforts of the health team to keep them in good health?

To tell the stories of medical and pharmaceutical advances to people throughout the country, the Pharmaceutical Manufacturers Association is sponsoring a unique "magazine within a magazine." It is called *Medicines and your family's health* and the first issue appears in the November *Reader's Digest*.

We would like to send you 50 free reprints of *Medicines and your family's health* for use in your reception room. Your patients will find the articles in this issue factual, educational and of immediate personal interest.

Just fill out the coupon below and send it to us.

Order Desk
Pharmaceutical Manufacturers Association
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Washington, D. C. 20005

Gentlemen:
Please send me 50 free copies of
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Name_____

Street_____

City_____ State_____ Zip_____

Let's be specific about Campbell's Soups... and *reducing diets*

There are more than 30 million people in America who are overweight. During the next year, you probably will see more than 1,000 of them in your own practice.

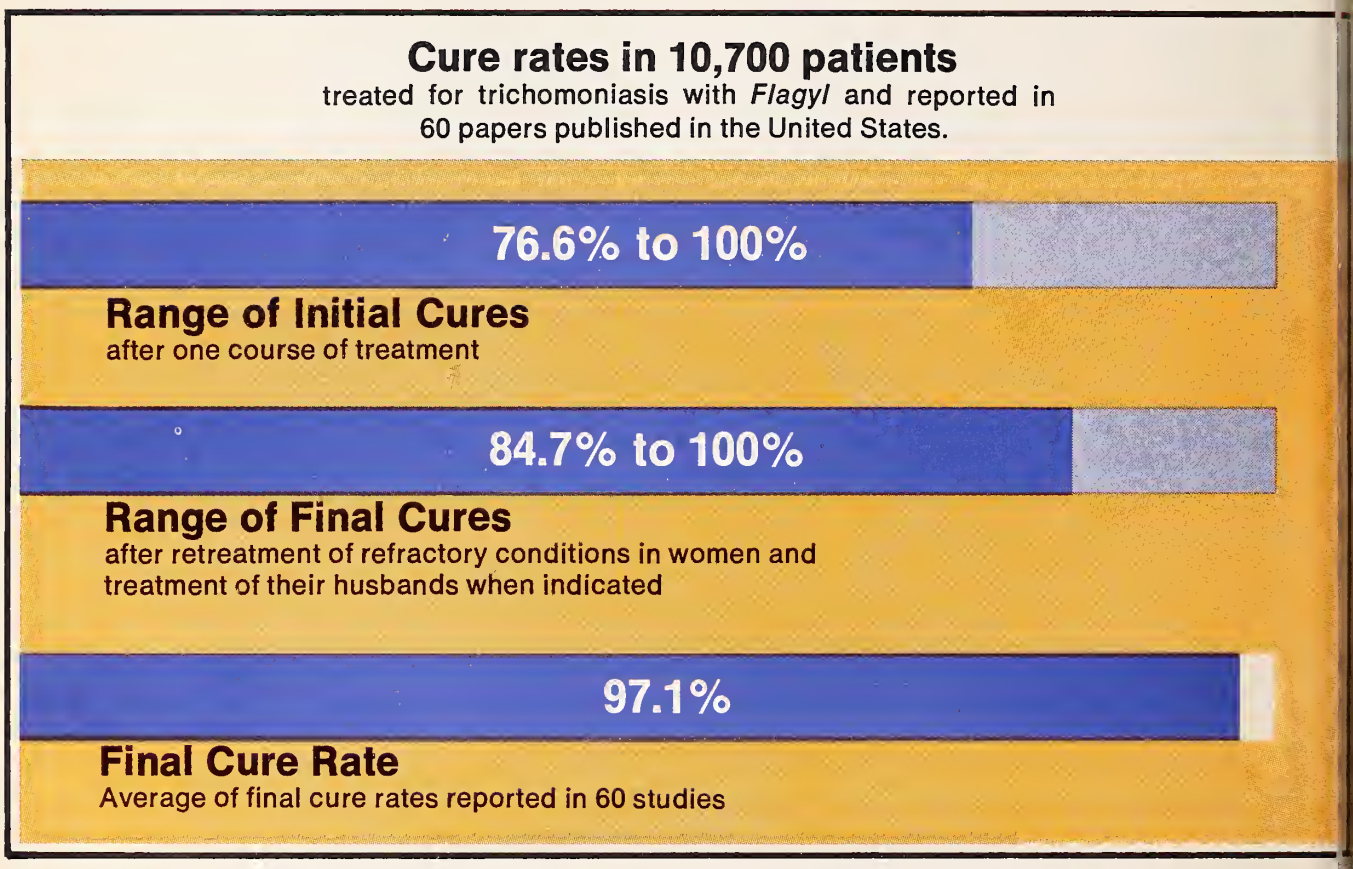
One good way to help these patients is to give them a reducing diet based on ordinary eating patterns.

Campbell has prepared a sensible plan for weight control based on ordinary eating patterns. The plan consists of a patient instruction booklet and a set of menus which provide approximately 1,200 calories daily. The menus are balanced to provide the minimum daily requirements of nutrients.

To obtain a supply for your office write to:
Campbell Soup Company, Box 265, Camden, N. J. 08101

True Drug Failure...

How often does it occu



Indications: Flagyl is indicated only in the treatment of trichomoniasis in both men and women.

Contraindications: Pregnancy; disease of the central nervous system; evidence or history of blood dyscrasia.

Precaution: Complete blood cell counts should be made before, during and after therapy, especially if a second course is necessary.

Side Effects: Infrequent and minor side effects include nausea, metallic taste and furry tongu Gastrointestinal disturbances, flushing and hea ache sometimes occur, especially with conco itant ingestion of alcohol. The taste of alcoho beverages may be altered. Other effects, all r ported in an incidence of less than 1 per cent, a diarrhea, dizziness, vaginal dryness and burnin dry mouth, rash, urticaria, gastritis, drowsine insomnia, pruritus, sore tongue, darkened urin anorexia, vomiting, epigastric distress, dysuri depression, vertigo, incoordination, ataxia, a

vith Flagyl®?

brand of

metronidazole

clinical practice an occasional uncooperative or drug-sensitive patient spouse makes 100 per cent cure of trichomonal vaginitis in large series patients difficult.

Further a very few patients who apparently absorb Flagyl poorly d a few rare instances of trichomonads resistant to Flagyl have been ported. Nevertheless, approximately half the United States investiga- rs report a final cure rate of 100 per cent with Flagyl.

Sixty papers[1] published on the use of Flagyl in trichomoniasis in the nited States and comprising a total of 10,700 patients have been evalu- ed. In thirty of the papers it was declared that all patients adequately llowed and treated were free of trichomonal infection.

Analysis of all of these papers shows that the incidence of cures for e *initial* course of therapy ranged from 76.6 per cent to 100 per cent. ne cure rates after retreatment of female patients and treatment of their sbands when indicated ranged from 84.7 to 100 per cent. The average al cure rate reported in all investigations was 97.1 per cent.

ominal cramping, constipation, stomatitis, mbness or paresthesia of an extremity, joint ins, confusion, irritability, weakness, cystitis, lvic pressure, dyspareunia, fever, polyuria, in- ntinence, decreased libido, nasal congestion, octitis and pyuria. Elimination of trichomonads ay aggravate candidiasis.

osage and Administration: In women: one 50-mg. oral tablet three times daily for ten days. vaginal insert of 500 mg. is available for local erapy when desired. When used, one vaginal insert should be placed high in the vaginal vault each day for ten days; concurrently two oral tablets should be taken daily.

In men: When trichomonads are demonstrated, one 250-mg. oral tablet twice daily for ten days in conjunction with treatment of his female partner.

Dosage Forms: Oral tablets—250 mg.
Vaginal inserts—500 mg.

1. Complete list of references on request.

SEARLE

Research in the Service of Medicine

a puzzle of antacid complaints

Mylanta®

aluminum and magnesium hydroxide *plus* simethicone

a solution to peptic ulcer distress

Effective neutralization—
with the two most widely prescribed antacids: aluminum and magnesium hydroxides.

Concomitant relief of G.I. gas distress—
with the proven[1] defoaming action of simethicone.

Prolonged acceptance confirmed—
in 87.5% of 104 patients after a total of 20,459 documented days of therapy.[2]

Composition: Each Mylanta chewable tablet or teaspoonful (5 ml.) contains: magnesium hydroxide, 200 mg.; aluminum hydroxide, dried gel, 200 mg.; simethicone, 20 mg. Dosage: One or two tablets (well chewed or allowed to dissolve in the mouth) or one or two teaspoonfuls to be taken between meals and at bedtime.

References: 1. Hoon, J. R.: Arch. Surg. *93*:467 (Sept.) 1966.
2. Danhof, I. E., Personal communication.

Stuart Division/Pasadena, Calif.
ATLAS CHEMICAL INDUSTRIES, INC.

Federally Approved Home Health Services Agencies in Indiana

ALLEN COUNTY

Visiting Nurses Association of Fort Wayne
227 E. Washington Blvd.
Fort Wayne

BARTHOLOMEW COUNTY

Bartholomew County Hospital Home Care Department
2400 East 17th St.
Columbus

BROWN COUNTY

Brown County Nursing Service
Brown County Health Department
Court House Annex
Nashville

CRAWFORD COUNTY

Crawford County Community Health & Home Maker Service
Court House
English

ELKHART COUNTY

Elkhart County Health Unit
313 N. Second St.
Elkhart

FULTON COUNTY

Fulton County Health Dept.
Courthouse
Rochester

JACKSON COUNTY

Home Health Care Division
Jackson County Dept. of Health
Jackson County Hospital
Poplar & Bruce Streets
Seymour

JEFFERSON COUNTY

Jefferson County Health Department
608 Broadway
Madison

JOHNSON COUNTY

Johnson County Health Department
Boehne Hosp. Rd., Sta. B
Franklin

LAKE COUNTY

Lake County Health Dept.
Court House
Crown Point

East Chicago Visiting Nurse Assn.
532 W. Chicago Ave.
East Chicago

LAPORTE COUNTY

Visiting Nurses Association of LaPorte County
905 Maple St.
LaPorte

MARION COUNTY

Home Care Agency of Marion County
2902 N. Meridian St.
Indianapolis

Home Health Dept. of Crossroads Rehabilitation Center
3242 Sutherland Ave.
Indianapolis

MARSHALL COUNTY

Home Health Division, Marshall County Health Dept.
Court House
Plymouth

Marshall County Health Dept.
Courthouse
Plymouth

MONROE COUNTY

Public Health Nursing Assn. of Bloomington & Monroe County
315 W. Dodds St.
Bloomington

OHIO COUNTY

Ohio County Health Dept.
Rising Sun

RUSH COUNTY

Rush County Public Health Dept.
Courthouse, Room 5
Rushville

ST. JOSEPH COUNTY

South Bend Indiana Visiting Nurses Assn.
321 Lincolnway West
South Bend

TIPPECANOE COUNTY

Lafayette Visiting Nursing Service
1501 Hartford Ave.
Lafayette

VANDERBURGH COUNTY

Evansville Public Health Nursing Assn.
120 S.E. First St.
Evansville

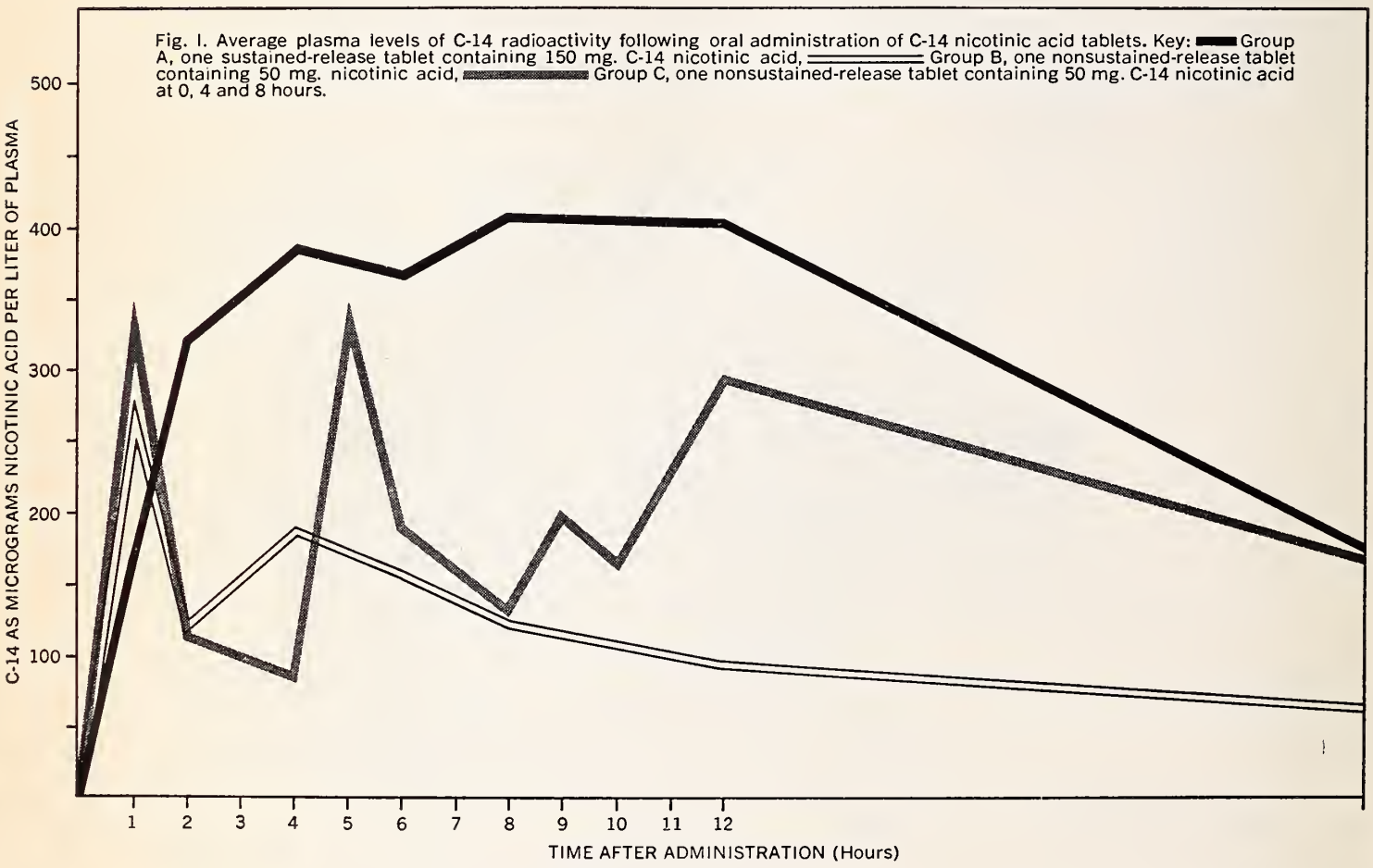
VIGO COUNTY

Visiting Nurse Assn. of Terre Haute
328 S. Fifth St.
Terre Haute

WAYNE COUNTY

Public Health Nursing Assn.
15 N. 10th St.
Richmond

Sustained circulatory, respiratory and cerebral stimulation for the



(fewer absent doses by absent-minded patients)

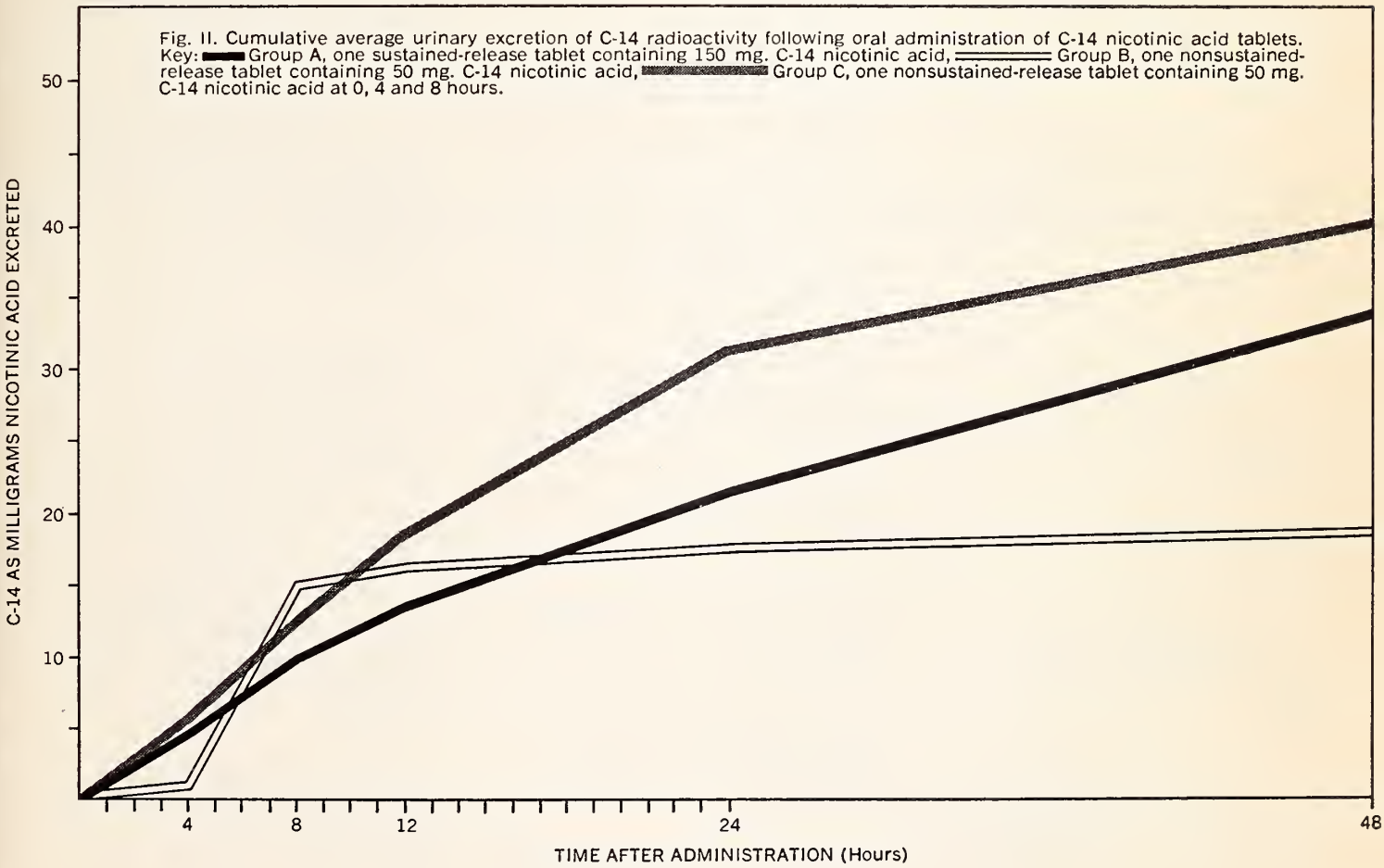
Human volunteer subjects were administered Geroniazol TT tablets with the nicotinic acid component made radioactive with C-14. Plasma and urine samples were analyzed. (See Figures I and II) The radioactive tracer study substantiated the previous clinical evidence that the release of nicotinic acid from the Geroniazol TT tablet produced a gradual rise in plasma levels to a plateau for a total of 12 hours and more.

Such proven sustained activity makes the management of geriatric patients much easier by minimizing the possibility of neglected doses through absent-mindedness or senile confusion. Therapy *can* be continuous on a daily dose of only one Geroniazol TT tablet every 12 hours.

The gradual release of nicotinic acid in Geroniazol TT will provide the well-known peripheral vasodilatation needed in patients with deficient circulation and with a minimum amount (if any) of "flushing." Also, cerebrovascular circulation is complemented by pentylenetetrazol, long-established as a cerebral and respiratory stimulant.

Geroniazol TT improves the typical, unfortunate, signs of senile confusion. Patients become more alert,

ged and debilitated



less confused and moody. Personal care, memory, emotional stability, social attention improve. Fatigue, apathy and irritability are reduced.

A prescription for 100 tablets of Geroniazol TT will permit your patients to enjoy the benefits of time-prolonged nicotinic acid/pentylenetetrazol therapy, at an economical price. Dosage is only one tablet every 12 hours.

Contraindications: There are no known contraindications.

Precautions: Exercise caution when treating patients with a low convulsive threshold.

Side Effects: Side effects are rarely encountered, however due to the vasodilatation effect of nicotinic acid, transitory mild nausea, flushing, tingling and pruritus are possible.

Dosage: One tablet every 12 hours.

Supplied: Prescribe bottles of 100 tablets, to take advantage of recent price reduction.

References: 1. Report by Nuclear Science & Engineering Corp., Pittsburgh, Pa., in files of Philips Roxane Laboratories. 2. Connolly, R.: W. Virginia Med. J. *56*:263 (Aug.) 1960. 3. Curran, T. R., and Phelps, D. K.: Am. Pract. & Digest Treat. *11*:617 (July) 1960.

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PHILIPS ROXANE LABORATORIES
Division of Philips Roxane, Inc., Columbus, Ohio
A Subsidiary of Philips Electronics and
Pharmaceutical Industries Corp.

Geroniazol® TT

nicotinic acid 150 mg., pentylenetetrazol 300 mg.
Tempotrol® Time Controlled Tablet

Medicare Approved Independent Clinical Laboratories

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Ft. Wayne Medical Laboratory
520 Medical Center Building
347 W. Berry St.
Ft. Wayne

DAVIESS COUNTY

Medical Laboratory
516 S. E. Fifth St.
Washington

FLOYD COUNTY

Physician's Precision Automated Laboratories, Inc.
1903 State St.
New Albany

KNOX COUNTY

W. J. Pierce, M.D., Laboratory
R. R. #1
Bruceville

Doctors' Laboratory
704 Vigo St.
Vincennes

KOSCIUSKO COUNTY

Murphy Medical Center, Inc.
Warsaw

LAKE COUNTY

South County Clinical Laboratory
12110 Grant St.
Crown Point

Gary Clinical Laboratory
504 Broadway
Gary

Gary Medical Center Clinical Laboratories
3290 Grant St.
Gary

Lake County Clinical Laboratory
3275 Broadway
Gary

Physicians Laboratory
5231 Hohman
Hammond

Hobart Clinical Laboratory
295 S. Wisconsin St.
Hobart

LAPORTE COUNTY

Robert J. Frost, M.D., Laboratory
1701 Buffalo St.
Michigan City

MADISON COUNTY

Anderson Medical Laboratories, Inc.
121 W. 12th St.
Anderson

MARION COUNTY

Indianapolis Laboratory for Pathology
516 Hume Mansur Building
Indianapolis

Irvington Medical Laboratory
6051 E. Washington St.
Indianapolis

Mazzini Serodiagnostic Laboratory
513 Hume Mansur Building
Indianapolis

Meridian Laboratory
3120 N. Meridian St.
Indianapolis

Mershon Medical Laboratories
3855 E. 10th St.
Indianapolis

Mershon Medical Laboratories
3600 W. 16th St.
Indianapolis

Southern Professional Laboratory
234 E. Southern Ave.
Indianapolis

Thornton-Haymond-Costin Medical Laboratory
301 E. 38th St.
Indianapolis

POSEY COUNTY

Pathology Laboratory Service
114 W. Fourth St.
Mt. Vernon

ST. JOSEPH COUNTY

Jefferson Medical Arts Laboratory
919 E. Jefferson Blvd.
South Bend

South Bend Medical Foundation
531 N. Main St.
South Bend

TIPPECANOE COUNTY

Lafayette Clinical Laboratory
300 Main, Life Building
Lafayette

VANDERBURGH COUNTY

Clinical Laboratory of F. W. Porro, M.D. and W. J. Snively, M.D.
3700 Bellemeade Ave.
Evansville

Pathology Service
P.O. Box 624
3700 Bellemeade Ave.
Evansville

VIGO COUNTY

Greenwood Clinical & X-Ray
360 S. Madison Ave.
Greenwood

Terre Haute Medical Laboratory
1505 N. Seventh St.
Terre Haute

Valley Medical Laboratory
465 S. 25th St.
Terre Haute

WAYNE COUNTY

Richmond Clinical Pathology Laboratories
100 N. 15th St.
Richmond

Richmond Clinical Pathology Laboratories (No. 2)
1250 Chester Blvd.
Richmond ◄

ROSTER OF MEMBERS

Indiana State Medical Association
and
Woman's Auxiliary

June 1968

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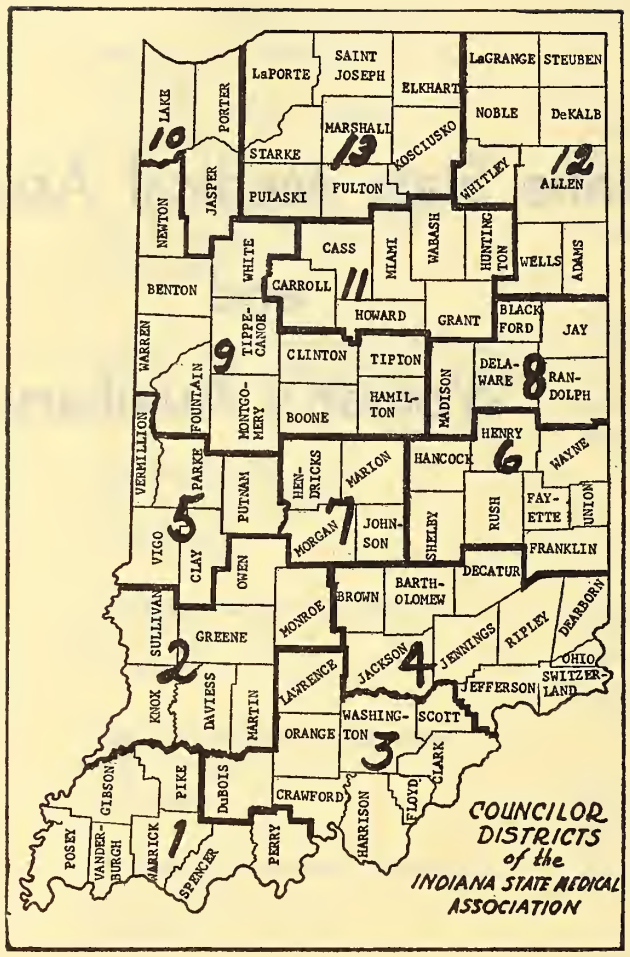
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RIPLEY
DEARBORN
OHIO
JACKSON
LAWRENCE
EFFERSON
SWITZER-LAND
KNOX
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COUNCILOR DISTRICTS of the INDIANA STATE MEDICAL ASSOCIATION

Membership Roster

INDIANA STATE MEDICAL ASSOCIATION

Following is a list of paid-up members of the Indiana State Medical Association as of May 1, 1968.

The letter (S) following a name indicates that the physician is a senior member of his local society and of the Indiana State Medical Association. The letter (H) following a name indicates that the physician is an honorary member of his local society and the Indiana State Medical Association.

Physicians are listed in the county medical society in which they hold membership.

Names of members who have died during the year do not appear in this list.

If any errors are found in this list, please report them to THE JOURNAL, 3935 N. Meridian, Indianapolis, Indiana 46208. The cooperation of members is urgently requested.

ALPHABETICAL LIST OF MEMBERS

For street addresses, see roster of members by counties, p. 33/789

Name	City	County
	A	
Aagesen, Walter J.	Anderson	Madison
Abell, Charles F.	Marion	Grant
Abell, William A.	Anderson	Madison
Able, Walter	Columbus	Bartholomew-Brown
Abramson, Allan L.	Gary	Lake
Acher, Robert P.	Greensburg	Decatur
Acker, Herbert K.	Fort Wayne	Allen
Acker, Robert B. (S)	South Bend	St. Joseph
Acre, Robert R. (S)	Evansville	Vanderburgh
Adair, Samuel L.	Jeffersonville	Clark
Adair, William K. (S)	Crothersville	Jackson-Jennings
Adams, Julia L.	Muncie	Delaware-Blackford
Adams, E. Wade	Fort Wayne	Allen
Adams, Max R.	Greenfield	Carroll
Adams, William B.	Muncie	Delaware-Blackford
Addleman, Robert H.	Indianapolis	Marion
Ade, Charles H.	Lafayette	Tippecanoe
Ade, Mary Keller	Lafayette	Tippecanoe
Adkins, Harold C.	Indianapolis	Marion
Adler, David L.	Columbus	Bartholomew-Brown
Adler, Fred	Highland	Lake
Adler, Raymond N.	Evansville	Vanderburgh
Adler, Yolanda	Highland	Lake
Adney, Frank B., Jr.	Richmond	Wayne-Union
Advincula, Luis V.	Greencastle	Clay
Adye, Wallace M., Jr.	Evansville	Vanderburgh
Agana, Adriano A.	Gary	Lake
Ahlbrand, Roland C.	Fort Wayne	Allen
Ahler, Kenneth J.	South Bend	St. Joseph
Aiken, Arthur F.	Fort Wayne	Allen
Aiken, Milo M.	Plainfield	Hendricks
Aiken, Nevin E.	Fort Wayne	Allen
Ake, Loren	Richmond	Wayne-Union
Albertson, Frank P.	Indianapolis	Marion
Albrecht, Willard H.	Indianapolis	Marion
Alcorn, Merritt O.	Madison	Jefferson-Switzerland
Alderfer, Henry H.	Marion	Grant
Aldred, Allen W.	Fort Wayne	Allen
Aldrich, Harry D.	Indianapolis	Marion
Aldrich, Howard	Indianapolis	Marion
Alexander, Ezra D.	Indianapolis	Marion
Alexander, Jack L.	Muncie	Delaware-Blackford
Alexander, John E.	Evansville	Vanderburgh
Alexander, Paul J.	Olympia, Wash.	Marion
Alexander, Stephen J.	Crawfordsville	Montgomery
Alfano, Paul A.	Gary	Lake
Alig, Vincent B.	Indianapolis	Marion
All, Barbara B.	Indianapolis	Marion
Allegretti, Michael L.	Munster	Lake
Allen, Donald R.	Evansville	Marion
Allen, George S.	Georgetown	Floyd
Allen, Lawrence E.	Indianapolis	Marion
Allen, Robert K.	Indianapolis	Marion
Allen, Robert T.	Richmond	Wayne-Union
Allen, William H.	Evansville	Vanderburgh
Alley, Thomas W.	Indianapolis	Marion
Almquist, Carl O. (S)	Gary	Lake
Alt, Edward M., Jr.	Munster	Lake
Althoff, William R.	Kokomo	Howard
Altier, William H.	Lafayette	Benton
Altuna, Raquel	Valparaiso	Porter
Alvarez, Paul	Crown Point	Lake
Alvis, David L.	Indianapolis	Marion
Alvis, Edmond O. (S)	Indianapolis	Marion
Alward, John H.	Kokomo	Howard
Amaya, Carlos E.	Flora	Carroll
Ambrose, Jesse C.	Noblesville	Hamilton
Ambrozaitis, Kazys	Gary	Lake
Amico, Pasquale J.	Gary	Lake
Amos, Robert L.	New Castle	Henry
Anderson, Ernest	Fort Wayne	Allen
Anderson, Garland D.	Fort Wayne	Allen
Anderson, James T.	Greenfield	Hancock
Anderson, James W.	Indianapolis	Marion
Anderson, John B.	Vincennes	Knox
Anderson, John T.	Zionsville	Marion
Anderson, Milton H.	Evansville	Vanderburgh
Anderson, Richard M.	Vincennes	Knox
Anderson, Robert C.	Richmond	Wayne-Union
Anderson, Walter C.	Terre Haute	Vigo
Anderson, Wendell C.	Indianapolis	Marion
Andrew, Jerald L.	Fort Wayne	Allen
Andrews, C. Franklin	Geneva	Jay
Andrews, Fred B.	Columbus	Bartholomew-Brown
Andrews, Hugh K.	Franklin	Johnson
Angel, Virgil E.	Highland	Lake
Angeles, Uldarico A.	Portage	Lake
Angulo, Edilberto D.	Munster	Lake
Ansbacher, Stefan (H)	Marion	Grant
Anshutz, William M.	Indianapolis	Marion

Name	City	County
Antes, Earl H.	Evansville	Vanderburgh
Antreasian, Berj	Indianapolis	Marion
Appel, Richard H.	Indianapolis	Marion
Apple, Eddie R.	Salem	Washington
Applegate, Albert E.	Frankfort	Clinton
Applegate, George W.	Indianapolis	Marion
Arata, James A.	Fort Wayne	Allen
Arata, Justin E.	Fort Wayne	Allen
Arata, Lucian A.	Shelbyville	Shelby
Arbeiter, Herbert I.	Munster	Lake
Arbogast, John L.	Indianapolis	Marion
Arbogast, Paul B.	Vincennes	Knox
Arbuckle, William E. (S)	Indianapolis	Marion
Arendell, Robert E.	Evansville	Vanderburgh
Arford, John E.	Warsaw	Kosciusko
Arive, Floro F.	Oaklandon	Hancock
Arlook, Theodore D.	Elkhart	Elkhart
Armalavage, Leon J.	Valparaiso	Porter
Armer, Robert M.	Indianapolis	Marion
Armington, Charles L.	Anderson	Madison
Armington, Robert L.	Anderson	Madison
Armstead, John W.	Indianapolis	Marion
Armstrong, Thomas D.	Michigan City	La Porte
Arney, Amos	Michigan City	La Porte
Arnold, Aaron L.	Indianapolis	Marion
Arnold, Robert D.	Indianapolis	Marion
Arnold, Thomas L.	Wichita Falls, Texas	Marion
Aronson, Sidney S.	Indianapolis	Marion
Arrowsmith, James L.	Munster	Lake
Artis, Myrle E.	Kokomo	Howard
Artz, Richard W.	Angola	Steuben
Arvin, Delano Z.	Lafayette	Tippecanoe
Ashburn, Clarence M.	Muncie	Delaware-Blackford
Asher, James W.	New Augusta	Marion
Ashman, William C.	Fort Wayne	Allen
Ashwood, Edward L.	Woodbury, N. J.	Marion
Assue, Clare M.	Indianapolis	Marion
Atkins, Clarence C.	Rushville	Rush
Atwood, William H.	Elkhart	Elkhart
Ault, Carl H.	Kokomo	Howard
Ault, Roy J.	Terre Haute	Vigo
Aust, Charles H.	Ft. Wayne	Allen
Austin, Charles E.	Anderson	Madison
Austin, Eugene W.	Evansville	Vanderburgh
Austin, Maynard A. (S)	Evansville	Madison
Austin, Richard P.	Bedford	Lawrence
Avegno, John H.	Cincinnati, Ohio	Lake
Avery, George O.	Indianapolis	Marion
Ayers, Marion E.	Indianapolis	Hamilton
Ayres, Wendell W.	Marion	Grant
Azar, Esmail	Valparaiso	Porter

B

Name	City	County
Baadj, Abdel G.	Indianapolis	Marion
Babb, Forrest J.	Stockwell	Tippecanoe
Babcoke, Gary A.	Cedar Lake	Lake
Bacala, Jesus	Scottsburg	Scott
Bachmann, Arnold J.	Indianapolis	Marion
Backer, George P.	La Porte	La Porte
Backer, Henry G.	Ferdinand	Dubois
Backer, Mary B.	La Porte	La Porte
Backs, Alton J.	South Bend	St. Joseph
Bader, Joseph	Indianapolis	Marion
Bahler, Dean R.	Brookston	Tippecanoe
Bahr, Robert E.	Fort Wayne	Allen
Bailey, Douglas A.	Marion	Grant
Bailey, Earl W.	Logansport	Cass
Bailey, Edwin B.	Linton	Greene
Bailey, Lawrence S.	Zionsville	Boone
Bailey, Paul P. (S)	Fort Wayne	Allen
Baird, Melvin S.	Indianapolis	Marion
Bakemeier, Otto H. (S)	Indianapolis	Marion
Bakemeier, Robert E.	Indianapolis	Marion
Baker, Avey M. (S)	New Albany	Floyd
Baker, Charles R.	Indianapolis	Marion
Baker, Eldon E.	Delphi	Carroll
Baker, Guy D. (S)	Crandall	Harrison-Crawford
Baker, Herman M. (S)	Evansville	Vanderburgh
Baker, John C.	Indianapolis	Marion
Baker, John R.	W. Lafayette	Tippecanoe
Baker, Leslie M.	Aurora	Dearborn-Ohio
Baker, Milan D.	Culver	Marshall
Baker, Sam B.	Evansville	Vanderburgh
Baker, Warren (S)	Michigan City	La Porte
Bakos, Edward R.	Maplewood, Mo.	Lake
Balaguer, Carmen V.	Hammond	Lake
Balch, James F., Jr.	Indianapolis	Marion
Baldwin, John H. (S)	Jeffersonville	Clark
Balkema, Catherine M.	Lafayette	Tippecanoe
Ball, Clay A. (S)	Muncie	Delaware-Blackford
Ball, John R.	Fort Wayne	Allen
Ball, Joseph E.	Indianapolis	Marion
Ball, Margaret J.	Fort Wayne	Allen
Ball, Philip	Muncie	Delaware-Blackford
Ballenger, William E.	Richmond	Wayne-Union
Balsbaugh, George K.	North Manchester	Wabash
Balter, Eugene	Gary	Lake
Baltes, Joseph H.	Fort Wayne	Allen
Banez, Ramon V.	Richmond	Wayne-Union
Bankoff, Milton L.	Michigan City	La Porte
Banks, Horace M. (S)	Indianapolis	Marion
Bannon, William G.	Terre Haute	Vigo
Baptisti, Arthur, Jr.	Indianapolis	Marion
Baran, Charles	South Bend	St. Joseph
Barch, John W.	Fort Wayne	Allen
Bard, Frank B.	Crothersville	Jackson-Jennings
Barden, Tom P.	Indianapolis	Marion
Barnes, Gilbert H.	Indianapolis	Marion
Barnes, Helen B.	Greenwood	Johnson
Barnhart, Willard T.	Evansville	Vanderburgh
Barone, Carmelo V.	Mishawaka	St. Joseph
Barrett, James W.	Washington	Daviess-Martin
Barrett, Thomas L.	Vincennes	Knox
Barron, Elmer A.	East Chicago	Lake
Barros, Paul	Gary	Lake
Barrow, John H.	Dale	Dubois
Bartle, James L.	Indianapolis	Marion
Bartlett, Donald T.	Vincennes	Knox
Bartley, Max D.	Indianapolis	Marion
Bartley, Stan L.	Glenview, Ill.	Delaware-Blackford
Barton, Reginald R.	Gary	Lake
Barton, Robert	Angola	Steuben
Barton, Willoughby M.	Centerville	Wayne-Union
Bartsch, Harvey L.	South Bend	St. Joseph
Bash, Wallace E.	Fort Wayne	Allen
Baskett, Russell J.	Jonesboro	Grant
Bassett, Margaret	Thorntown	Boone
Bassler, Carl R. (S)	Niles, Mich.	St. Joseph
Bastnagel, William F.	Indianapolis	Marion
Bates, John C.	Elizabethtown, Ky.	Scott
Bates, Laurence H.	Indianapolis	Marion
Batman, Gordon W.	Indianapolis	Marion
Battersby, J. Stanley	Indianapolis	Marion
Batties, Paul A.	Indianapolis	Marion
Battle, Frederick G.	Michigan City	La Porte
Bauer, Thomas B.	Indianapolis	Marion
Baughn, William L.	Anderson	Madison
Baum, John R.	Warsaw	Kosciusko
Baumeister, Herbert E.	Indianapolis	Marion
Baumgartner, Jeraldine	Fort Wayne	Allen
Baxter, Harry R.	Seymour	Jackson-Jennings

Name	City	County
Baxter, John P.	Indianapolis	Marion
Baxter, Neal E.	Bloomington	Owen-Monroe
Baxter, Samuel M. (S)	New Albany	Floyd
Bayley, William E.	Lafayette	Tippecanoe
Baynes, Frank L.	Wolcott	White
Beach, Norman F.	South Bend	St. Joseph
Beach, Robert R.	Indianapolis	Marion
Beams, Ralph H.	Fort Wayne	Allen
Bean, Joseph S.	Logansport	Cass
Bean, William J.	Montgomery, Ala.	Marion
Beardsley, Frank A., Jr.	Frankfort	Clinton
Beaven, John B.	Jasper	Dubois
Beaver, Ernest R.	Rensselaer	Jasper
Beaver, Howard W.	Indianapolis	Marion
Beaver, Norman E.	Berne	Adams
Bechtol, Lavon D.	Indianapolis	Marion
Bechtold, Samuel E.	South Bend	St. Joseph
Beck, Evart M.	Indianapolis	Marion
Beck, Robert E.	Evansville	Vanderburgh
Becker, Harry G.	Indianapolis	Marion
Becker, Samuel W.	Whiting	Lake
Beckes, Ellsworth W.	Vincennes	Knox
Beconovich, Robert	Munster	Lake
Bedwell, Marion H.	Sullivan	Sullivan
Beebe, Milton O., Jr.	Rockville	Parke-Vermillion
Beeler, Franklin K.	Anderson	Madison
Beeler, John W.	Indianapolis	Marion
Beeler, Raymond C. (S)	Indianapolis	Marion
Beeson, Wilbur P.	Greenfield	Hancock
Begley, Joseph W., Jr.	Evansville	Vanderburgh
Begley, Robert W.	Anderson	Madison
Beggs, Lowell F.	Columbus	Bartholomew-Brown
Behn, Walter M. (S)	Gary	Lake
Beierlein, Karl M.	Fort Wayne	Allen
Beights, Raymond S.	Fort Wayne	Allen
Beisel, Larry H.	Evansville	Vanderburgh
Bell, Horace D.	South Bend	St. Joseph
Belshaw, George	Indianapolis	Marion
Belt, James H.	Indianapolis	Marion
Benchik, Frank A.	East Chicago	Lake
Bender, John M.	Goshen	Elkhart
Bender, Martin J.	Evansville	Vanderburgh
Bender, Robert L.	Elkhart	Elkhart
Bendler, Carl H.	Gary	Lake
Bendush, Cecil L.	Evansville	Vanderburgh
Benedict, Harold G.	Pendleton	Madison
Benedict, Paul F.	Indianapolis	Marion
Benken, Lawrence D.	Muncie	Delaware-Blackford
Bennett, Abner P.	Evansville	Vanderburgh
Bennett, Ivan F.	Indianapolis	Marion
Bennett, J. B.	Warren	Huntington
Bennett, James E.	Indianapolis	Marion
Bennett, Jene R.	South Bend	St. Joseph
Bennett, Kent B.	Lebanon	Boone
Bennhoff, David F.	Great Lakes, Ill.	Marion
Benson, J. Thomas	Indianapolis	Marion
Benson, James E.	Elkhart	Elkhart
Benz, Jesse C. (S)	Marengo	Harrison-Crawford
Benz, Owen F.	Wanatah	La Porte
Bergal, Milton B.	Gary	Lake
Bergan, Joseph A.	Michigan City	La Porte
Bergendahl, Emil H.	Fort Wayne	Allen
Berger, Morley	Miami Beach, Fla.	Marion
Berghoff, James R.	Fort Wayne	Allen
Bergwall, Warren L.	Muncie	Delaware-Blackford
Berke, Robert D.	South Bend	St. Joseph
Berkson, Myron E.	Michigan City	La Porte
Berman, Edward J.	Indianapolis	Marion
Berman, Jacob K. (S)	Indianapolis	Marion
Bernard, Marvin R.	Gary	Lake
Bernoske, Daniel G.	Indianapolis	Marion
Berry, John M.	Indianapolis	Marion
Beruben, Miguel F.	East Chicago	Lake
Best, Robert C.	Whiting	Lake
Bethea, Dennis A. (S)	Hammond	Lake
Bethea, Robert O.	Farmersburg	Sullivan
Beuerman, V. A.	Lafayette	Tippecanoe
Beutler, Theodore V.	Fort Wayne	Allen
Bhagwandin, Harry O.	Indianapolis	Marion
Biasini, Benedict A.	South Bend	St. Joseph
Bibler, Henry E.	Muncie	Delaware-Blackford
Bibler, Lester D.	Indianapolis	Marion
Bickel, David A. (S)	South Bend	St. Joseph
Bickers, Everett E.	New Albany	Floyd
Bidney, Evelyn B.	Bloomington	Owen-Monroe
Biegel, Angenieta A.	Indianapolis	Marion
Bigler, Frederick W.	Goshen	Elkhart
Bill, Robert O.	Indianapolis	Marion
Billings, Elmer R.	Elkhart	Elkhart
Billingsley, John S.	Fort Wayne	Allen
Bills, R. James	Gary	Lake
Bills, Robert N. (S)	Gary	Lake
Birdzell, John P.	Crown Point	Lake
Birmingham, Peter J. (S)	South Bend	St. Joseph
Birum, Patricia J.	Union City	Randolph
Bishop, Harry A.	Frankton	Madison
Bissonnette, Roger P.	Evansville	Vanderburgh
Bixler, Donald P.	Anderson	Madison
Bixler, James A.	Fort Wayne	Allen
Bixler, Louis C.	South Bend	St. Joseph
Bizer, Mier A.	Jeffersonville	Clark
Black, Boyd K.	Vincennes	Knox
Black, Henry R.	Indianapolis	Marion
Black, M. James	Brownsburg	Hendricks
Black, Joseph M.	Seymour	Jackson-Jennings
Blackburn, Howard R.	Noblesville	Hamilton
Blackford, Florence	Indianapolis	Marion
Blackford, Ralph E. (S)	Indianapolis	Marion
Blackwell, Donald S.	Indianapolis	Marion
Blaisdell, William F.	Seymour	Jackson-Jennings
Blake, Albert L.	Indianapolis	Marion
Bland, Jack D.	Holland	Dubois
Blassaras, Crist A.	Anderson	Madison
Blatt, A. Ebner	Indianapolis	Marion
Blazey, Arthur G.	Washington	Daviess-Martin
Bledsoe, James G.	New Castle	Henry
Blessinger, Louis H.	Corydon	Harrison-Crawford
Blichert, Peter A.	Fort Wayne	Allen
Blix, Fred M.	Ladoga	Montgomery
Bloemker, E. Fredrick	Tucson, Ariz.	Marion
Bloemker, Edward F.	Indianapolis	Marion
Bloom, Asa W.	Marion	Grant
Bloom, George R.	Elkhart	Elkhart
Bloomer, Richard S.	Rockville	Parke-Vermillion
Bloss, Bryant A.	Evansville	Vanderburgh
Blossom, Paul W.	Richmond	Wayne-Union
Bloxdorf, John W.	Terre Haute	Vigo
Blum, Leon L.	Terre Haute	Vigo
Boaz, William D.	Wabash	Wabash
Bobb, Kenneth E.	Seymour	Jackson-Jennings
Bodnar, Leslie M.	South Bend	St. Joseph
Bogan, William C.	South Bend	St. Joseph
Bogardus, Carl R.	Austin	Scott
Boggs, Eugene F.	Indianapolis	Marion
Boha, Rudolf L.	Borden	Floyd
Bohner, Caryle B. (S)	Hidalgo, Mexico	Marion
Bolin, Robert C.	Lafayette	Tippecanoe
Boling, Frederick F.	Indianapolis	Marion

Name	City	County
Boling, Grover C.	Indianapolis	Marion
Boling, Richard C.	Elkhart	Elkhart
Bolinger, Garry L.	Indianapolis	Marion
Bollheimer, Don A.	Fort Wayne	Allen
Bomalaski, M. Donald	Wahiawa, Hawaii	Marion
Bomba, Brad J.	Bloomington	Owen-Monroe
Bombar, Leslie E.	Munster	Lake
Bond, George S. (S)	Indianapolis	Marion
Bond, Virginia	Indianapolis	Marion
Bond, Walter C. (S)	Clay City	Clay
Bond, William H.	Indianapolis	Marion
Bonsett, Charles A.	Indianapolis	Marion
Booher, Norman R.	Indianapolis	Marion
Booher, Olga Bonke	Indianapolis	Marion
Boone, Robert D.	Evansville	Vanderburgh
Boonstra, Charles E.	Bluffton	Wells
Booth, Boynton H.	Indianapolis	Marion
Booth, Franklin M.	South Bend	St. Joseph
Booze, James H.	Bloomington	Owen-Monroe
Bopp, Henry W., Jr.	Terre Haute	Vigo
Bopp, James	Terre Haute	Vigo
Boren, Paul R.	Poseyville	Posey
Bornstein, Herschel	Gary	Lake
Borland, Raymond M.	Bloomington	Owen-Monroe
Borough, Lester D.	South Bend	St. Joseph
Bosch, Ralph	Seymour	Jackson-Jennings
Bosler, Howard A.	Westville	La Porte
Bossard, John W.	Fort Wayne	Allen
Boswell, Robert W. C.	Evansville	Vanderburgh
Botkin, Charles L. (S)	Muncie	Delaware-Blackford
Botkin, Charles T.	Muncie	Delaware-Blackford
Botkin, Clyde G.	Muncie	Delaware-Blackford
Bowdoin, George E. (S)	Elkhart	Elkhart
Bowen, Gerald T.	Lawrenceburg	Dearborn-Ohio
Bowen, Otis R.	Bremen	Marshall
Bower, Richard E.	Fort Wayne	Allen
Bowers, Charles R.	Anderson	Madison
Bowers, Copeland C.	Kokomo	Howard
Bowers, Gah T.	Fort Wayne	Allen
Bowers, Garvey B.	Kokomo	Howard
Bowers, George W.	Fort Wayne	Allen
Bowers, John A.	Kokomo	Howard
Bowers, Jesse W. (S)	Fort Wayne	Allen
Bowman, Charles M.	Albion	Noble
Bowser, Philip G.	Goshen	Elkhart
Boyce, Paul A.	San Diego, Calif.	Marion
Boyd, H. Clark	Terre Haute	Vigo
Boyd, Stella N.	Oakland City	Vanderburgh
Boyer, Don W.	Lebanon	Boone
Boyer, Floyd A.	Indianapolis	Marion
Boyer, Grace B.	Marion	Grant
Boyle, Carroll L.	Evansville	Vanderburgh
Boys, Fay F.	East Chicago	Lake
Boze, Robert L.	Berne	Adams
Bradley, Louis F.	Bluffton	Wells
Bradley, Richard V.	Kokomo	Howard
Brady, Kingdon	West Lafayette	Tippecanoe
Brady, Thomas A.	Indianapolis	Marion
Brakel, Frank J., Jr.	Evansville	Vanderburgh
Branam, George E.	Muncie	Delaware-Blackford
Branco, Arthur M.	Munster	Lake
Brand, Anna	Calumet City, Ill.	Lake
Brandman, Harry	Gary	Lake
Brandt, William E.	Fort Wayne	Allen
Brauer, Abraham A.	Westville	La Porte
Braun, Benjamin D.	East Chicago	Lake
Braunlin, Robert J.	Fort Wayne	Allen
Brayton, Lee	Indianapolis	Marion
Brechtl, Harvey J.	South Bend	St. Joseph
Breedlove, C. Dane	Fairmount	Grant
Brennan, Bess B.	Hammond	Lake
Brennan, William C.	Whiting	Lake
Brenner, Howard B.	Munster	Lake
Bretz, John M.	Huntingburg	Dubois
Brickley, Harry D.	Indianapolis	Marion
Brickley, Richard A.	Indianapolis	Marion
Bridge, Barton C.	Lafayette	Tippecanoe
Bridges, Alvin L.	Anderson	Madison
Bridges, William L.	Fort Wayne	Allen
Bridwell, Edgar	Bedford	Lawrence
Briggs, Robert W.	Indianapolis	Marion
Brill, Joseph B.	Jeffersonville	Clark
Brillhart, James R.	Indianapolis	Marion
Brincko, John	Gary	Lake
Brink, Calvin C. (S)	Gary	Lake
Bristol, Henry M. S.	Terre Haute	Vigo
Britt, Robert L.	Evansville	Vanderburgh
Britton, Welbon D.	Montezuma	Parke-Vermillion
Brock, Joseph T.	New Castle	Henry
Brockman, Wilfred J.	Corydon	Harrison-Crawford
Brockmole, Arnold W.	Evansville	Vanderburgh
Brodersen, James D.	Munster	Lake
Brodie, Donald W.	Indianapolis	Marion
Bromley, Luman W.	Fort Wayne	Allen
Bronson, Paul J. (S)	Terre Haute	Vigo
Brooks, Edwin A.	Evansville	Vanderburgh
Brooks, Fred R., Jr.	Indianapolis	Marion
Brooks, G. Tanner	Richmond	Wayne-Union
Brooks, Leonard C.	Warsaw	Kosciusko
Broomes, Edward L. C.	East Chicago	Lake
Brose, Paul E.	Defiance, Ohio	Marion
Broshears, Kenneth P.	Linton	Greene
Brosius, Robert H. W.	Fort Wayne	Allen
Brough, A. Kathleen	Roxbury, Mass.	Marion
Brown, Archie E.	Indianapolis	Marion
Brown, David B.	Michigan City	Lake
Brown, David E.	Indianapolis	Marion
Brown, DeWitt W.	Indianapolis	Marion
Brown, Earl E.	Greenwood	Marion
Brown, Earl R., Jr.	Indianapolis	Marion
Brown, Frances T. (S)	Indianapolis	Marion
Brown, Frank M.	Indianapolis	Marion
Brown, Frederic W.	Fort Wayne	Allen
Brown, Garland R.	Fort Wayne	Allen
Brown, George E.	Greenwood	Johnson
Brown, Gordon T.	Indianapolis	Marion
Brown, James C.	Valparaiso	Porter
Brown, James R.	Valparaiso	Porter
Brown, John S.	Carlisle	Sullivan
Brown, Kenneth H.	New Albany	Floyd
Brown, Leland G.	Muncie	Delaware-Blackford
Brown, Leo R.	Gary	Lake
Brown, Marcel S.	Spencer	Owen-Monroe
Brown, Richard J.	Kokomo	Howard
Brown, Robert L.	Evansville	Vanderburgh
Brown, Robert M.	Marion	Grant
Brown, Robert R.	Terre Haute	Vigo
Brown, Stewart D.	Albany	Delaware-Blackford
Brown, Thomas M.	Muncie	Delaware-Blackford
Brown, Wendell E.	Indianapolis	Marion
Browning, James S.	Indianapolis	Marion
Browning, William M.	Nineveh	Marion
Brownley, E. Jane	Indianapolis	Marion
Brubaker, Harold S.	Huntington	Huntington
Brubeck, Robert E.	Martinsville	Morgan
Bruce, Reginald A.	Indianapolis	Marion
Brucker, Perry A.	Fort Wayne	Allen
Brueckmann, F. Robert	Indianapolis	Marion

Name	City	County
Bruegge, Theodore J.	Kokomo	Howard
Bruetsch, Walter L. (S)	Santa Barbara, Calif.	Marion
Bryan, Franklin A.	Fort Wayne	Allen
Bryan, Paul E.	Madison	Jefferson-Switzerland
Bryan, Robert E.	Kendallville	Noble
Bryan, Stanton L.	Evansville	Vanderburgh
Bryant, Edward G.	East Chicago	Lake
Buchanan, Wallace D.	South Bend	St. Joseph
Buche, Frederick P. (S)	Richmond	Wayne-Union
Buchman, Marshall H.	New Albany	Floyd
Buckingham, Richard E.	Bloomington	Owen-Monroe
Buckles, David L.	Anderson	Madison
Buckner, George D.	Fort Wayne	Allen
Buckner, Joy F.	Bluffton	Wells
Buddrus, David J.	Evansville	Vanderburgh
Buehl, Isabelle A.	Indianapolis	Marion
Buehler, George M.	Jeffersonville	Clark
Buechler, William F.	Elwood	Madison
Buechner, Frederick W.	South Bend	St. Joseph
Buehner, Donald F.	Evansville	Vanderburgh
Buell, Forrest R.	Clay City	Clay
Bugh, Charles W.	Fairbanks, Alaska	Marion
Buhrmester, Harry C.	Lafayette	Tippecanoe
Bullers, Robert C.	Franklin	Johnson
Bullington, George E.	Whiteland	Johnson
Bunker, Ladoska Z.	North Manchester	Wabash
Burcham, James B.	Madison	Jefferson-Switzerland
Burdette, Harold F.	Indianapolis	Marion
Burger, Thomas C.	Evansville	Vanderburgh
Burghard, Rolla D.	Indianapolis	Marion
Burk, James M.	Decatur	Adams
Burket, Cecil R.	Bremen	Marshall
Burkhardt, Boyd A.	Tipton	Tipton
Burkle, Robert J.	Terre Haute	Vigo
Burnett, Arthur B.	New Castle	Henry
Burnett, Paul C.	Logansport	Cass
Burnikel, Ray H.	Evansville	Vanderburgh
Burns, John T.	Lafayette	Tippecanoe
Burns, Paul E.	Montpelier	Delaware-Blackford
Burwell, Stanley W.	Muncie	Delaware-Blackford
Bush, Charles E.	Kirklin	Clinton
Bush, Edward R.	Anderson	Madison
Bush, Hargis R. (S)	Cannelton	Perry
Bush, Jack A.	Lafayette	Tippecanoe
Buslee, Roger M.	South Bend	St. Joseph
Bussard, Frank W.	South Bend	St. Joseph
Butler, John O.	Indianapolis	Marion
Butler, Robert M.	Indianapolis	Marion
Butts, Milton A.	South Bend	St. Joseph
Butz, Ralph O.	Muncie	Delaware-Blackford
Byler, John J.	North Liberty	St. Joseph
Byllesby, Joyce E.	Crawfordsville	Montgomery
Byrd, Ryland P.	Jeffersonville	Clark
Byrn, Howard W. (S)	Oxford	Benton
Byrne, Louis	Bloomington	Owen-Monroe
Byrne, Robert J.	Bicknell	Knox
C		
Cabigas, Jose S.	Richmond	Wayne-Union
Cabrera, Pelayo B.	Gary	Lake
Cadiente, Samson S.	Indianapolis	Marion
Cagle, Bob R.	New Palestine	Hancock
Cahn, Hugo M.	Indianapolis	Marion
Cahn, Peter H.	Indianapolis	Marion
Cahue, Antonio R.	Gary	Lake
Cain, David R.	New Castle	Henry
CaJacob, Melville E.	Terre Haute	Vigo
Caldwell, Marilyn R.	Indianapolis	Marion
Caldwell, Milton V.	Terre Haute	Vigo
Calhoon, John P.	Indianapolis	Hendricks
Call, Herbert F.	Indianapolis	Marion
Callaghan, Winship C.	Greensburg	Decatur
Calland, Sabra W.	Indianapolis	Marion
Calli, Louis J.	North Vernon	Jackson-Jennings
Calvert, Raymond R.	Lafayette	Tippecanoe
Calvin, Helen M.	South Bend	St. Joseph
Calvin, O. Walter	Chicago, Ill.	St. Joseph
Cameron, Don F.	Angola	Steuben
Cameron, Mary H.	Angola	Steuben
Campagna, Ettor A.	East Chicago	Lake
Campbell, Frank	Anderson	Madison
Campbell, H. Edwin, Jr.	Indianapolis	Marion
Campbell, John A.	Indianapolis	Marion
Campbell, Patrick B.	Elkhart	Elkhart
Campbell, Richard W.	Monterey, Calif.	Marion
Campbell, Robert L.	Indianapolis	Marion
Campbell, Sam W.	New Castle	Henry
Campbell, William T.	Bloomington	Owen-Monroe
Canganelli, Vincent G.	Lafayette	Tippecanoe
Cannon, Daniel H.	New Albany	Floyd
Cantwell, Edgar R.	Vincennes	Knox
Caplin, Irvin	Indianapolis	Marion
Caplin, Samuel S.	Indianapolis	Marion
Caputi, Saverio	Indianapolis	Marion
Carberry, George A.	Gary	Lake
Carbone, Joseph A.	Gary	Lake
Carey, J. Albert	Gary	Lake
Carlberg, Dale L.	Jeffersonville	Clark
Carlo, Ernest R. (S)	Fort Wayne	Allen
Carlson, Milton R.	Portage	Porter
Carlson, Norman R.	Michigan City	La Porte
Carlson, Ralph F.	Evansville	Vanderburgh
Carlyle, Ivan E. (S)	Michigantown	Clinton
Carmody, Raymond F.	Gary	Lake
Carney, Joel T. (S)	Jeffersonville	Clark
Carpenter, Bennie F.	Crown Point	Lake
Carpenter, Donald J.	Terre Haute	Vigo
Carpenter, James B.	Lafayette	Tippecanoe
Carpenter, Ramesh S.	Garrett	DeKalb
Carpenter, Robert S.	W. Lafayette	Tippecanoe
Carpentier, James R.	La Porte	La Porte
Carr, Joseph H.	Henryville	Clark
Carrel, Francis E.	Frankfort	Clinton
Carroll, Bertha Rose	W. Lafayette	Tippecanoe
Carroll, John C.	Decatur	Adams
Carroll, Mary E.	Crown Point	Lake
Carson, Wayne	Indianapolis	Marion
Carter, Eunice M.	Noblesville	Hamilton
Carter, F. R. N. (S)	South Bend	St. Joseph
Carter, Fred S.	La Porte	La Porte
Carter, James E.	Indianapolis	Marion
Carter, Jean V. (S)	Tipton	Tipton
Carter, John O.	Hobart	Lake
Carter, Robert A.	Terre Haute	Vigo
Cartwright, Glen W.	Lafayette	Tippecanoe
Carty, Charles B.	Pekin	Washington
Casey, Stanley M. (S)	Huntington	Huntington
Cassady, James V. (S)	South Bend	St. Joseph
Cassady, John R.	South Bend	St. Joseph
Cassim, Rechad M.	Elkhart	Elkhart
Cast, William R.	Columbia, S. Carolina	Marion
Castro, Ignacio B., Jr.	Scottsburg	Scott
Cates, Jeryl R.	Evansville	Vanderburgh
Cattell, Lee M.	Kokomo	Howard
Caudill, Rodney C.	Anderson	Madison
Cavins, Alexander W.	Terre Haute	Vigo
Caylor, Charles H.	Bluffton	Wells
Caylor, Harold D.	Bluffton	Wells
Caylor, Truman E.	Bluffton	Wells
Cespedes, Carlos A.	Griffith	Lake
Chael, Thomas C.	Munster	Lake
Challman, William B.	Evansville	Vanderburgh
Chamberlain, Donald S.	South Bend	St. Joseph

Name	City	County
Chambers, Alan R.	Fort Wayne	Allen
Chambers, Carol R.	Union City	Randolph
Chambers, Leroy B.	Union City	Randolph
Chandler, Leon H.	Goshen	Elkhart
Chaney, Robert D.	Indianapolis	Marion
Chappel, Alfred T.	Franklin	Johnson
Chase, James A.	Fort Wayne	Allen
Chastain, Truman L.	Salem	Washington
Chattin, Herbert O.	Vincennes	Knox
Chattin, Robert E.	Loogootee	Daviess-Martin
Chattin, William R.	Indianapolis	Marion
Chattin, Vance J.	Washington	Daviess-Martin
Chau, Andrew Y. S.	Terre Haute	Vigo
Chavez, Mauro E.	Indianapolis	Marion
Cheesman, Donald D.	Danville	Hendricks
Chen, Ko K.	Indianapolis	Marion
Cheng, Sylvia F.	Logansport	Cass
Chernish, Stanley M.	Indianapolis	Marion
Chevalier, Robert B.	Indianapolis	Marion
Childs, Wallace E.	Madison	Jefferson-Switzerland
Chivington, Paul V.	Indianapolis	Marion
Choslovsky, Sydney	Gary	Lake
Christie, Marvin C.	Beech Grove	Marion
Christophel, Verna A.	Mishawaka	St. Joseph
Chroniak, Walter	Indianapolis	Marion
Chu, Johnson C. S.	Logansport	Cass
Chube, David D.	Gary	Lake
Church, Robert A.	Munster	Lake
Clark, Charles M., Jr.	Bethesda, Md.	Marion
Clark, Edward E.	Indianapolis	Marion
Clark, George A.	Indianapolis	Marion
Clark, Ivan A.	Paoli	Orange
Clark, Jack P.	Syracuse	Elkhart
Clark, Lawson J.	Indianapolis	Marion
Clark, Lintner E.	Muncie	Delaware-Blackford
Clark, Robert M.	Muncie	Delaware-Blackford
Clark, Samuel S.	Munster	Lake
Clark, Thomas W.	Evansville	Vanderburgh
Clark, William B., Jr.	Jeffersonville	Clark
Clark, William H.	South Bend	St. Joseph
Clark, William R., Jr.	Fort Wayne	Allen
Clark, William R.	Fort Wayne	Allen
Clarkson, Clarence G.	Richmond	Wayne-Union
Classen, Pete R. C.	Elkhart	Elkhart
Clay, Eleanor	Columbus	Bartholomew-Brown
Clevinger, William G.	Indianapolis	Marion
Cline, Donald L.	Philadelphia, Pa.	Marion
Cline, Kenneth L.	Wyatt	St. Joseph
Close, Frederick W.	Fort Wayne	Allen
Close, Gerald A.	Rhodesia, Africa	Marion
Close, W. Donald	Indianapolis	Marion
Clouse, John F.	Richmond	Wayne-Union
Clouse, Paul A.	Evansville	Vanderburgh
Clunie, William A.	Huntington	Huntington
Coates, Jacqueline	Indianapolis	Marion
Coats, Eli A.	Indianapolis	Hendricks
Cobb, Clarence M.	Indianapolis	Marion
Coble, Frank H.	Richmond	Wayne-Union
Cochran, Harry A., Jr.	Fort Wayne	Allen
Cochran, Robert B.	Muncie	Delaware-Blackford
Cockrum, William M.	Evansville	Vanderburgh
Coddens, Avery L.	Earl Park	Benton
Coffel, Melvin H.	Vincennes	Knox
Coggeshall, Warren E.	Indianapolis	Marion
Cohen, Hyman	Gary	Lake
Cohen, Irving	Plainfield	Hendricks
Cohn, Alvin F.	Greenwood	Marion
Cole, Ira (S)	Lafayette	Tippecanoe
Coleman, Floyd B.	Waterloo	DeKalb
Coleman, Henry G.	Salem	Washington
Coleman, Joseph E.	Evansville	Vanderburgh
Colip, George D.	South Bend	St. Joseph
Collins, Hubert L.	Indianapolis	Marion
Collins, Jack T.	Bluffton	Wells
Collins, Robert C.	Indianapolis	Marion
Colosey, Frederick J.	South Bend	St. Joseph
Colvin, Robert C.	Newburgh	Warrick
Combs, Daniel	Vincennes	Knox
Combs, Herman T.	Evansville	Vanderburgh
Combs, John H.	Evansville	Vanderburgh
Combs, Stuart R.	Terre Haute	Vigo
Comeau, William J.	Marion	Grant
Comer, Kenneth E.	Mooresville	Morgan
Compton, George L.	Tipton	Tipton
Compton, Walter A.	Elkhart	Elkhart
Conklin, James O.	Terre Haute	Vigo
Conklin, Raymond L. (S)	Elkhart	Elkhart
Conley, John E. (S)	Fort Wayne	Allen
Conley, Joseph L. (S)	Indianapolis	Marion
Conley, Thomas M.	Kokomo	Howard
Connell, Vactor O.	Bourbon	Marshall
Connelly, Jerry H.	Fort Wayne	Allen
Connelly, Richard D.	Fort Wayne	Allen
Connerley, Marion L.	Terre Haute	Vigo
Connoy, Leo F.	Westfield	Hamilton
Conrad, Everett L.	Brazil	Clay
Conrad, Henry W.	Lawrenceburg	Dearborn-Ohio
Constan, Evan	Cincinnati, Ohio	La Porte
Conway, Chester C.	Indianapolis	Marion
Conway, Glenn	Indianapolis	Marion
Conway, Thomas J.	Terre Haute	Vigo
Cook, Charles E.	North Manchester	Wabash
Cook, Gordon C.	South Bend	St. Joseph
Cook, Melvin D.	New Albany	Floyd
Cook, Robert G.	Bluffton	Wells
Cooke, J. Kenneth	Indianapolis	Marion
Cookson, Lawrence U.	Indianapolis	Marion
Cooney, Charles J.	Fort Wayne	Allen
Coons, John D. (S)	Lebanon	Boone
Coons, Ritchie	Lebanon	Boone
Cooper, B. Trent	Roanoke	Huntington
Cooper, Harry L. (S)	South Bend	St. Joseph
Cooper, John F.	Muncie	Delaware-Blackford
Cooper, Leo K.	Gary	Lake
Cooper, Waller W.	Evansville	Vanderburgh
Cope, Stanton E.	Huntington	Huntington
Corcoran, Patrick J. V.	Evansville	Vanderburgh
Cormican, Herbert L.	Elkhart	Elkhart
Cornacchione, Matthew	Indianapolis	Marion
Corpe, Kenneth F.	Rushville	Rush
Corrao, Gaetano	Gary	Lake
Corrao, Thomas J.	Jeffersonville	Clark
Cortese, James V.	Indianapolis	Marion
Cortese, Thomas A., Jr.	Indianapolis	Marion
Cortese, Thomas A.	Indianapolis	Marion
Costello, Albert J.	Munster	Lake
Costin, Robert L.	Indianapolis	Marion
Cotter, Edward R.	Hammond	Lake
Cottrell, Robert F.	Fort Wayne	Allen
Coughenour, J. Robert	Indianapolis	Marion
Countryman, Frank W.	Indianapolis	Marion
Coursey, James O., Jr.	Plymouth	Marshall
Covalt, Wendell E.	Muncie	Delaware-Blackford
Covell, Harry M.	Auburn	DeKalb
Covey, Thomas J.	Valparaiso	Porter
Cox, Alfred C.	South Bend	St. Joseph
Cox, J. Bruce	Evansville	Vanderburgh
Cox, Leon T.	Richmond	Wayne-Union
Coyner, Alfred B. (S)	Lafayette	Tippecanoe
Craft, Kenneth L. (S)	Indianapolis	Marion
Craig, Alexander F.	Indianapolis	Marion
Craig, Harry L.	Huntingburg	Dubois

Name	City	County
Craig, Reuben	Kokomo	Howard
Craig, Richard M.	Fort Wayne	Allen
Craig, Robert A.	Syracuse	Elkhart
Crates, Gordon C.	Denver	Miami
Crawford, James H.	Evansville	Vanderburgh
Crawford, John A.	Indianapolis	Marion
Crawford, Theodore R.	Kokomo	Howard
Creek, Jean A.	Bloomington	Owen-Monroe
Crevello, Albert J.	Evansville	Vanderburgh
Crimm, Paul D.	Evansville	Vanderburgh
Cripe, Earl P.	Bremen	Marshall
Cripe, William H.	Portland	Jay
Crist, John R.	Mt. Vernon	Posey
Cristee, James W.	Terre Haute	Vigo
Crockett, Wayne A.	Terre Haute	Vigo
Cron, William J.	Warsaw	Kosciusko
Cronin, H. Joseph	Indianapolis	Marion
Crosby, Reid C.	Bedford	Lawrence
Cross, David G.	Indianapolis	Marion
Crossin, James A.	Indianapolis	Marion
Crouse, Ben E.	Mulberry	Tippecanoe
Crowder, James H.	Sullivan	Sullivan
Crudden, Charles H.	Evansville	Vanderburgh
Crum, Marion M.	Angola	Steuben
Cuff, Steve C.	Fort Wayne	Allen
Culbertson, Carl S.	South Bend	St. Joseph
Culbertson, Clyde G.	Indianapolis	Marion
Cullen, P. Kent, Jr.	Indianapolis	Marion
Cullison, John L.	Muncie	Delaware-Blackford
Cullnane, Chris W.	Evansville	Vanderburgh
Culp, John E.	Fort Wayne	Allen
Cumming, James R.	Indianapolis	Marion
Cunningham, Gene C.	Indianapolis	Marion
Cunningham, Robert D.	Marion	Grant
Cure, Charles W.	Indianapolis	Marion
Cure, Elmer T.	Muncie	Delaware-Blackford
Curiel, Hector J.	Richmond	Wayne-Union
Currie, Robert W.	Indianapolis	Marion
Curry, R. Louis	Indianapolis	Marion
Curtner, Myron L. (S)	Vincennes	Knox
Cusick, James A.	Indianapolis	Marion
Custer, Edward W.	South Bend	St. Joseph
Cuthbert, Marvin P.	Indianapolis	Marion
Czenkusch, Helen G.	Indianapolis	Marion

D

Name	City	County
Dacquisto, Michael P.	Zionsville	Marion
Daggy, James R.	Richmond	Wayne-Union
Dahling, Clemens W.	New Haven	Allen
Dahling, Fred W.	New Haven	Allen
Dainko, Alfred J.	East Chicago	Lake
Daley, Edward H.	Indianapolis	Marion
Dallas, Fred R.	Indianapolis	Marion
Dallas, Mary E.	Indianapolis	Marion
Dalton, Naomi L.	Bloomington	Owen-Monroe
Dalton, William W.	Indianapolis	Marion
Dalton, Wilson L.	Shelbyville	Shelby
Daly, Joseph M.	Indianapolis	Marion
Daniel, John C. (S)	Laguna Hills, Calif.	Marion
Daniel, Robert A.	Gary	Lake
Dannacher, William D.	Wabash	Wabash
Darbro, David A.	Indianapolis	Marion
Darling, Dorothy R.	Gary	Lake
Das, Amal K.	Kokomo	Howard
Datzman, Basil J.	La Porte	La Porte
Datzman, Richard C.	Fort Wayne	Allen
Daugherty, Forest D.	Columbus	Bartholomew-Brown
Daugherty, Fred N. (S)	Crawfordsville	Montgomery
Daugherty, William L.	Hutsonville, Ill.	Sullivan
Dauscher, Dean D.	Fort Wayne	Allen
David, George J.	Muncie	Delaware-Blackford
Davidoff, Manuel A.	Fort Wayne	Allen
Davidson, Dale A.	Indianapolis	Marion
Davidson, Harold H.	Evansville	Vanderburgh
Davidson, N. Cort	Indianapolis	Marion
Davis, Bennie L.	Indianapolis	Marion
Davis, Carl M. (S)	Valparaiso	Porter
Davis, Claude E.	Angola	Steuben
Davis, Edward A.	South Bend	St. Joseph
Davis, Grayson B.	Lafayette	Tippecanoe
Davis, Howard B.	Lafayette	Tippecanoe
Davis, John A.	Flat Rock	Shelby
Davis, Joseph B.	Marion	Grant
Davis, Kenneth D.	Evansville	Vanderburgh
Davis, Margaret M.	Indianapolis	Marion
Davis, Marvin R.	Columbus	Bartholomew-Brown
Davis, Merrill S. (S)	Marion	Grant
Davis, Paul E.	Terre Haute	Vigo
Davis, Sam J.	Indianapolis	Marion
Davis, Thomas N. III	Hammond	Lake
Davis, William H.	New Market	Montgomery
Day, William D. C.	Seymour	Jackson-Jennings
Dayson, Louie O.	Vincennes	Knox
Deal, Eleanor H.	Speedway City	Marion
Dean, Donald I.	Rushville	Rush
Deanovic, Frank W.	Richmond	Wayne-Union
Dearmin, Robert M.	Indianapolis	Marion
DeArmond, Murray	Indianapolis	Marion
DeArmond, Murray M., Jr.	San Francisco, Calif.	Marion
De Bois, Elon	Gary	Lake
DeBrota, John, Jr.	Indianapolis	Marion
Decatur, David R.	Indianapolis	Marion
Deery, Michael F.	Culver	Marshall
Deever, John W.	Indianapolis	Marion
DeFries, John J.	New Paris	Elkhart
DeGrazia, Eugene J.	Valparaiso	Porter
Dehner, John R.	Richmond	Wayne-Union
Deitch, Robert D.	Indianapolis	Marion
de la Cotera, Frederick G.	Munster	Lake
DeMotte, C. Bowen	Greenwood	Marion
DeNaut, James F.	Knox	Starke
Denham, Robert H.	South Bend	St. Joseph
Dennison, Alfred D., Jr.	Indianapolis	Marion
Denny, Forrest L.	Indianapolis	Marion
Denny, James W.	Indianapolis	Marion
Denny, Melvin H.	Anderson	Madison
Denton, Larkin D.	Greentown	Howard
Denzer, Edward K.	Evansville	Vanderburgh
Denzer, William O.	Evansville	Vanderburgh
Deogracias, Francisco D.	Edinburg	Johnson
DePorter, Louis A.	Munster	Lake
Deppe, Charles F.	Franklin	Johnson
Derhammer, George L.	Brookston	Tippecanoe
Dersch, David M.	Columbus, Ohio	Marion
Dester, Herbert E. (S)	Berne	Adams
Dettloff, Frederick R.	Greencastle	Putnam
Deupree, William D.	Shelbyville	Shelby
Deur, Julius J.	Lafayette	Tippecanoe
Deutsch, William	Muncie	Delaware-Blackford
Devetski, Robert L.	South Bend	St. Joseph
DeVoe, Kenneth R.	South Bend	St. Joseph
DeWees, Dwight L.	Indianapolis	Marion
DeWester, Gerald M.	Indianapolis	Marion
Dian, August J.	Logansport	Cass
Dickerson, W. Martin	Monticello	White
Dickson, Carolyn L.	Indianapolis	Marion
Dickson, Dale D.	Greensburg	Decatur
Dieckman, Herbert S.	Evansville	Vanderburgh
Dierdorf, Fred W.	Terre Haute	Vigo
Dierolf, Edward J.	Gary	Lake
Dieter, William J.	Westville	La Porte

Name	City	County
Dietl, Ernest L.	South Bend	St. Joseph
Dietz, David J.	Muncie	Delaware-Blackford
Dill, Charles W.	Beech Grove	Marion
Dill, Myron K.	Indianapolis	Marion
Dillman, Carl E.	Corydon	Harrison-Crawford
Dillon, John F.	Indianapolis	Marion
Dilts, Robert L.	Indianapolis	Marion
Dimailig, Gregorio H.	East Chicago	Lake
Dimitroff, Lambro	Calumet City, Ill.	Lake
Dimmett, James D.	Chandler	Warrick
Dingle, Paul E.	Richmond	Wayne-Union
Dingley, Albert F.	South Bend	St. Joseph
Dininger, William S. (S)	Winchester	Randolph
Dino, Florian S.	Indianapolis	Marion
Dintaman, Paul G.	Indianapolis	Marion
Dirks, Kenneth R.	Washington, D.C.	Marion
Disney, Charles T.	Gary	Lake
Dittmer, Jack E.	Valparaiso	Porter
Dittmer, Thomas L.	Valparaiso	Porter
Dixon, Rex W.	Anderson	Madison
Doan, John E.	Decatur	Adams
Dodd, Robert D.	South Bend	St. Joseph
Dodd, Roberts K.	Evansville	Vanderburgh
Dodds, James U.	Hartford City	Delaware-Blackford
Dodds, Wemple	Crawfordsville	Montgomery
Doenges, James L.	Anderson	Madison
Doermann, Paul E.	Huntington	Huntington
Doherty, Raymond J.	Crown Point	Lake
Dolan, Patrick A.	Indianapolis	Marion
Doles, Ted S.	Middletown	Madison
Dolezal, Bernard J.	South Bend	St. Joseph
Domingo, Ricardo C.	Greensburg	Decatur
Donahue, Claude M. (S)	Carmel	Hamilton
Donahue, Francis E.	Dublin	Henry
Donahue, George R.	Lafayette	Tippecanoe
Donahue, James M.	Indianapolis	Marion
Donaldson, Frank C.	Anderson	Madison
Donaldson, Miles W.	Marion	Grant
Donato, Albert M.	Indianapolis	Marion
Donchess, Joseph C.	Gary	Lake
Donesa, Antonio B.	Fort Wayne	Allen
Doneff, Ronald H.	Gary	Lake
Donnally, George A.	Geneva	Jay
Donnelly, Everett F.	South Bend	St. Joseph
Doran, J. Hal	Indianapolis	Marion
Dormire, Robert D.	Warsaw	Kosciusko
Dorrance, Thomas O.	Bluffton	Wells
Doss, Jerome F.	Kokomo	Howard
Doughty, Samuel R., Jr.	Indianapolis	Marion
Douglas, William T.	Indianapolis	Marion
Doumanian, Heratch O.	Gary	Lake
Dovey, Edward G.	Elkhart	Elkhart
Dowd, Joseph A.	Indianapolis	Marion
Dowell, Emil H. (S)	Rockville	Parke-Vermillion
Downer, Luther H.	Evansville	Vanderburgh
Dragomer, Andrei S.	Hammond	Lake
Dragoo, John R.	Wabash	Wabash
Drake, Dale W.	Evansville	Vanderburgh
Drake, Ellery T.	Martinsville	Morgan
Drake, James R.	Anderson	Madison
Drake, John C.	Anderson	Madison
Drake, Marion C.	Elwood	Madison
Drennen, Robert V.	Anderson	Madison
Dreyer, Ralph W.	Richmond	Wayne-Union
Drummy, William W.	Terre Haute	Vigo
Dryden, Gale E.	Indianapolis	Marion
Dublin, Madeline P.	Francesville	Tippecanoe
DuBois, Charles C. (S)	Warsaw	Kosciusko
DuBois, Ramon B.	Lafayette	Tippecanoe
Ducanes, Arnold D.	Greensburg	Decatur
Dudgeon, Charles A.	Hartford City	Delaware-Blackford
Dugan, Thomas	Columbus	Bartholomew-Brown
Dugan, William M., Jr.	Indianapolis	Marion
Dukes, Betty	Dugger	Sullivan
Dukes, David J.	Corydon	Harrison-Crawford
Dukes, Joe	Dugger	Sullivan
Dulin, Basil B.	Anderson	Madison
Dumanian, Ara V.	Homewood, Ill.	Lake
Dunbar, Fred E.	Marion	Grant
Duncan, John S. (S)	Gary	Lake
Duncan, Raymond	Bedford	Lawrence
Duncan, Stuart J.	Indianapolis	Marion
Duncan, William A.	Indianapolis	Marion
Dunham, Henry H.	Wabash	Wabash
Dunkin, Ramon S.	Indianapolis	Marion
Dunlap, D. Logan	South Bend	St. Joseph
Dunn, Latimer E.	Terre Haute	Vigo
Dunning, Preston M.	East Chicago	Lake
Dunning, Thomas W.	Muncie	Delaware-Blackford
Dunstone, Harry C.	Fort Wayne	Allen
Dupler, Lee F.	Frankfort	Clinton
Duque, Fausto	Clarksville	Clark
Durham, Lowell J.	La Porte	La Porte
Durham, Thomas E.	Elkhart	Elkhart
Durkee, Melvin S.	Evansville	Vanderburgh
Dusard, Joseph C.	Bedford	Lawrence
DuSold, Donald D.	Crown Point	Lake
Dutchman, William R.	Muncie	Delaware-Blackford
Dyar, Edwin W.	Indianapolis	Marion
Dyar, Robert W.	Indianapolis	Marion
Dycus, Walter A.	Evansville	Vanderburgh
Dye, Cloyd L.	New Castle	Henry
Dye, William E.	Oakland City	Gibson
Dyer, George W.	Terre Haute	Vigo
Dyer, Wallace K.	Evansville	Vanderburgh
Dyke, Richard W.	Indianapolis	Marion
Dyken, Mark L.	Indianapolis	Marion
Dyken, Paul R.	Indianapolis	Marion
Dykhuizen, Theodore A.	Frankfort	Clinton
Dziabis, Marvin D.	Wabash	Wabash

E

Name	City	County
Eades, R. Charles	South Bend	St. Joseph
Earl, Max M.	Kokomo	Howard
Earp, Evanson B.	Indianapolis	Marion
Easter, James N.	New Castle	Henry
Eastman, Joseph R., Jr.	Indianapolis	Marion
Eaton, Edwin R.	Indianapolis	Marion
Eaton, Lyman D.	Indianapolis	Marion
Eaton, Marion J.	Lafayette	Tippecanoe
Ebbinghouse, Tom	Richmond	Wayne-Union
Ebert, J. Wayne (S)	Indianapolis	Marion
Ebin, Judah L.	Evansville	Vanderburgh
Echeverria, Rodolfo E.	Elkhart	Elkhart
Echsner, Herman J.	Columbus	Bartholomew-Brown
Echt, Charles R.	Indianapolis	Marion
Eckert, Russell A.	Logansport	Cass
Edmonds, Kendrick	Bedford	Lawrence
Edwards, Bernard E.	South Bend	St. Joseph
Edwards, Henry G.	Terre Haute	Vigo
Edwards, Judith Ann	Indianapolis	Marion
Edwards, William F.	New Albany	Floyd
Edwards, Wendell L.	Indianapolis	Marion
Egan, Sherman L.	South Bend	St. Joseph
Egbert, Herbert L.	Indianapolis	Marion
Egger, Ross L.	Middletown	Delaware-Blackford
Eggers, Ernest L. (S)	Hammond	Lake
Eggers, Henry W.	Munster	Lake
Eggers, Richard R.	Crawfordsville	Montgomery
Egnatz, Charles D.	Schererville	Lake
Egnatz, Nicholas	Hammond	Lake

Name	City	County
Ehrich, William S. (S)	Flushing, New York	Vanderburgh
Eicher, Palmer O.	Indianapolis	Marion
Eiler, Paul A.	North Manchester	Wabash
Eisaman, Jack L.	Bluffton	Wells
Eisenberg, David A.	Martinsville	Morgan
Eldridge, Gail E.	Indianapolis	Marion
Elkins, James P.	Indianapolis	Marion
Elleman, John H.	Kokomo	Howard
Ellett, John, Jr.	Coatesville	Putnam
Elliott, Paul W.	Lafayette	Tippecanoe
Elliott, Thomas A.	Elkhart	Elkhart
Ellis, Charles R.	Indianapolis	Marion
Ellis, David L.	Wabash	Wabash
Ellis, Davis W., Jr.	Rushville	Rush
Ellis, Forrest D.	North Vernon	Jackson-Jennings
Ellis, George M.	Connersville	Fayette-Franklin
Ellis, Lyman H.	Lizton	Hendricks
Ellis, Seth W.	Anderson	Madison
Ellis, William N.	Indianapolis	Marion
Elshout, Clem H.	La Porte	La Porte
Elsten, Aubrey W.	Anderson	Madison
Elston, Lynn W. (S)	Fort Wayne	Allen
Elston, Ralph W.	Fort Wayne	Allen
Elward, Carl J.	Wabash	Wabash
Ely, Cecil W.	Jeffersonville	Clark
Emery, Charles B.	Bedford	Lawrence
Emery, Charles B., Jr.	Bloomington	Owen-Monroe
Emhardt, John T.	Indianapolis	Marion
Emhardt, John W. A. (S)	Indianapolis	Marion
Emme, Richard W.	Harlan	Allen
Encinas, Senen J.	English	Orange
Endicott, Wayne H.	Greenfield	Hancock
Engel, Edgar L.	Evansville	Vanderburgh
Engel, Howard R.	South Bend	St. Joseph
Engeler, James E.	Lafayette	Tippecanoe
English, Hubert M. (S)	Gary	Lake
English, John P.	South Bend	St. Joseph
Ensey, Philip L.	Terre Haute	Vigo
Entner, Charles L.	Dunkirk	Jay
Episcopo, Arsenius R.	Salem	Washington
Erdel, Milton W.	Frankfort	Clinton
Erehart, Mark G. (S)	Huntington	Huntington
Erhart, Herbert	Huntingburg	Dubois
Ericksen, Lester G.	South Bend	St. Joseph
Erickson, Gustaf W.	South Bend	St. Joseph
Ericson, Harold L.	Windfall	Tipton
Ericson, Homer S.	Kokomo	Howard
Erwin, W. Robert	La Porte	La Porte
Eshelman, Henry R.	Monterey	Pulaski
Eskew, Kenneth W.	Sullivan	Sullivan
Espino, Jose C.	Munster	Lake
Espy, Theodore R.	Gary	Lake
Estes, Ambrose C.	Bloomington	Owen-Monroe
Eugenides, Tatiana	Highland	Lake
Evans, Daniel R.	Valparaiso	Porter
Evans, David L.	Lafayette	Tippecanoe
Evans, Frederick H.	Indianapolis	Marion
Evans, Frederick J.	Clinton	Parke-Vermillion
Evans, Paul V.	Indianapolis	Marion
Everly, Ralph V.	Indianapolis	Marion
Everly, Stephan S.	Seattle, Wash.	Marion
Eviston, John B. (S)	Huntington	Huntington
Ewer, Robert W.	Evansville	Vanderburgh
Ewing, Nathaniel D.	Vincennes	Knox

F

Name	City	County
Fadell, Matthew J.	Gary	Lake
Fadul, Armand	Crown Point	Lake
Failey, Robert B., Jr.	Indianapolis	Marion
Fajardo, Manuel	Kouts	Porter
Farag, Rafik S.	Peru	Miami
Fargher, Francis M.	Michigan City	La Porte
Farid, Rahim S.	Brazil	Clay
Farmer, Charles R.	Washington	Daviess-Martin
Farner, James E.	Cleveland, Ohio	St. Joseph
Farnsworth, Samuel A.	La Porte	La Porte
Farquhar, John S., Jr.	Fort Wayne	Allen
Farr, James C.	Bloomington	Owen-Monroe
Farrell, John J., Jr.	Greenfield	Hancock
Farrell, Joseph T.	Indianapolis	Marion
Farris, John J.	Washington	Daviess-Martin
Faul, Henry J.	Evansville	Vanderburgh
Faulkner, Donald J.	Culver	Marshall
Fausset, C. Basil	Indianapolis	Marion
Faust, Howard M., Jr.	Anderson	Madison
Faw, Melvin L.	Evansville	Vanderburgh
Fear, Olan D.	Elkhart	Elkhart
Fechtman, William F.	Indianapolis	Marion
Feeney, Martin T.	Indianapolis	Marion
Feferman, Martin E.	South Bend	St. Joseph
Feinberg, Irwin	East Chicago	Lake
Feinn, Harry S.	La Porte	La Porte
Feldman, Max	South Bend	St. Joseph
Feldner, Ronald P.	Munster	Lake
Fell, Robert M.	Rosedale	Parke-Vermillion
Fenneman, Robert J.	Evansville	Vanderburgh
Fenstermacher, Robert E.	Walkerton	St. Joseph
Ferguson, Arthur N. (S)	Fort Wayne	Allen
Ferguson, Donald H.	Anderson	Madison
Ferguson, William B.	Lafayette	Tippecanoe
Ferrara, Donald W.	Peru	Miami
Ferrara, Joseph F.	Franklin	Johnson
Ferrara, Samuel J.	Peru	Miami
Ferrell, Mars B.	Fortville	Madison
Ferry, Francis A.	Indianapolis	Marion
Ferry, John L.	Whiting	Lake
Fessler, Gordon S.	Rising Sun	Dearborn-Ohio
Fetrow, Kenneth O.	Munster	Lake
Fiacable, Joseph P.	Fort Wayne	Allen
Fichman, Abraham M.	Fort Wayne	Allen
Fiederlein, Frederick J.	Muncie	Delaware-Blackford
Fields, Don C.	Lafayette	Tippecanoe
Fields, Donald L.	Kokomo	Howard
Fields, Max L.	Monticello	White
Filipek, Walter J.	South Bend	St. Joseph
Finfrock, James D.	Elkhart	Elkhart
Finneran, Joseph C.	Indianapolis	Marion
Fipp, August L.	Rome City	Noble
Firestein, Ben Z.	South Bend	St. Joseph
Firestein, Ray	South Bend	St. Joseph
Fisch, Charles	Indianapolis	Marion
Fischer, A. Alan	Indianapolis	Marion
Fischer, Burnell	Hammond	Lake
Fischer, Warren E.	Anderson	Madison
Fish, Clyde M. (S)	Edwardsburg, Mich.	St. Joseph
Fish, Edson C.	South Bend	St. Joseph
Fisher, Gerald E.	Lebanon	Marion
Fisher, Henry	Marion	Grant
Fisher, John E.	New Castle	Henry
Fisher, Lawrence F. (S)	South Bend	St. Joseph
Fisher, Pierre J., Jr.	Marion	Grant
Fisher, Walter S. (S)	Columbus	Bartholomew-Brown
Fisher, William P.	Indianapolis	Marion
Fitzgerald, Brice E.	W. Lafayette	Tippecanoe
Fitzgerald, William J.	Indianapolis	Marion
Fitzkee, William E.	Albion	Noble
Fitzpatrick, H. W. (S)	Elwood	Madison
Fitzpatrick, James S.	Portland	Jay
Fitzpatrick, William J.	Munster	Lake
Flack, Russell A.	Lafayette	Tippecanoe
Flaherty, Robert A.	Fort Wayne	Allen
Flanagan, Paul M.	Indianapolis	Marion

Name	City	County
Flanders, Robert, Jr.	Indianapolis	Marion
Flanigan, Meredith B.	Indianapolis	Marion
Flannigan, Harley F.	LaGrange	LaGrange
Fleischer, Jacob C.	East Chicago	Lake
Fleischl, Herbert	Indianapolis	Marion
Flick, John J.	Indianapolis	Marion
Flora, Fred W.	Frankfort	Clinton
Flora, Joseph O.	Indianapolis	Marion
Florcruz, Arturo R.	Highland	Lake
Floyd, Malcolm S.	Vincennes	Knox
Folck, John K.	Princeton	Gibson
Foley, Hansel O.	South Bend	St. Joseph
Foley, Phillip D.	Middletown	Madison
Folkening, Norval C.	Indianapolis	Marion
Fong, Theodore C. C.	Madison	Jefferson-Switzerland
Forbes, Violet Crabbe	Wolcott	White
Forchetti, John A.	Chesterton	Porter
Forrest, O. Norman, Jr.	South Bend	St. Joseph
Forsee, Norman E.	Jeffersonville	Clark
Fortner, Ray E.	Columbus	Bartholomew-Brown
Fortuna, Frank W.	Beech Grove	Marion
Fosbrink, Ephraim L.	Syracuse	Elkhart
Fosgate, Harold L.	Indianapolis	Marion
Foster, Douglas L.	Gary	Lake
Foster, John A.	Lafayette	Tippecanoe
Foster, Lee N.	Indianapolis	Marion
Foster, Ray D.	Indianapolis	Marion
Foster, Ray T.	New Castle	Henry
Foster, Robert H. K.	Franklin	Johnson
Fountaine, Thomas J.	Bedford	Lawrence
Fouts, Paul J.	Indianapolis	Marion
Fowler, R. Ross	Bloomington	Owen-Monroe
Fox, Jack M.	Munster	Lake
Fox, Richard F.	Lafayette	Tippecanoe
Foy, Thomas D.	Fort Wayne	Allen
Frable, Frank L., Jr.	Lawrenceburg	Dearborn-Ohio
Frahm, Charles	Homewood, Ill.	Lake
France, Lloyd C.	Plymouth	Marshall
Frank, Herbert	South Bend	St. Joseph
Frank, John R. (S)	Valparaiso	Porter
Frank, Lyall, Jr.	South Bend	St. Joseph
Frank, Lyall L. (S)	South Bend	St. Joseph
Frankhouser, Charles M. A., Jr.	Fort Wayne	Allen
Franklin, William L.	Indianapolis	Marion
Frankowski, Clementine	Whiting	Lake
Franz, Sherman G.	New York, N.Y.	Marion
Frasch, Mahlon G.	Lafayette	Tippecanoe
Frash, DeVon W., Jr.	South Bend	St. Joseph
Frazier, John L.	Kokomo	Howard
Freeby, C. William	Decatur	Adams
Freed, Carl A.	Indianapolis	Marion
Freeland, Bill E.	Batesville	Ripley
Freeman, Leslie W.	Indianapolis	Marion
Freeman, Max E.	Carmel	Marion
French, Richard N.	Indianapolis	Marion
Fretz, Richard C.	Kokomo	Howard
Frey, Harley H., Jr.	Lafayette	Tippecanoe
Frey, William B.	South Bend	St. Joseph
Friedman, Isadore E.	Hammond	Lake
Friedman, Morris S.	South Bend	St. Joseph
Frieske, David A.	Munster	Lake
Fritch, John M.	Lafayette	Tippecanoe
Frith, Louis G.	South Bend	St. Joseph
Froderman, Stanley E.	Brazil	Clay
Fromhold, Willis A.	Indianapolis	Marion
Frost, Robert J.	Michigan City	La Porte
Fry, Robert D.	Indianapolis	Marion
Fuelling, James L.	Marion	Grant
Fugelso, Erling S.	Bloomington	Owen-Monroe
Fullam, Richard G.	Fort Wayne	Allen
Fuller, Robert G.	Columbus	Bartholomew-Brown
Fulper, James C.	San Francisco, Calif.	Marion
Fulton, William H.	Indianapolis	Marion
Fultz, Roy L.	Salem	Washington
Fundenberger, Martin	Indianapolis	Marion
Furr, Jack D.	Kingman	Fountain-Warren
Fuson, Wenfred J.	Greencastle	Putnam
Futterknecht, James O.	Elkhart	Elkhart

G

Name	City	County
Gabe, William E. (S)	Orinda, Calif.	Marion
Gabovitch, Edward R.	Indianapolis	Marion
Gabrielsen, Ted H.	Indianapolis	Marion
Gaddy, Euclid T. (S)	Indianapolis	Marion
Gaddy, Nelson D.	Indianapolis	Marion
Gaffney, Raymond	South Bend	St. Joseph
Gahimer, Joe E.	Anderson	Madison
Galante, Albert	Munster	Lake
Galbreth, Jesse P. (S)	Burnettsville	White
Galliher, Marjorie J.	Muncie	Delaware-Blackford
Gallinatti, John J.	Gary	Lake
Gambill, William D.	Indianapolis	Marion
Gammieri, Robert L.	Indianapolis	Marion
Gammell, Lindley L.	Columbus	Bartholomew-Brown
Ganser, Ralph V.	South Bend	St. Joseph
Ganser, Richard A.	Mishawaka	St. Joseph
Ganz, Max	Marion	Grant
Garber, J. Neill	Indianapolis	Marion
Garceau, George J. (S)	Indianapolis	Marion
Gard, Daniel A.	Indianapolis	Marion
Gardiner, H. Glenn	Kennedy Space Center, Fla.	Lake
Gardiner, Sprague H.	Indianapolis	Marion
Gardner, Austin L.	Indianapolis	Marion
Gardner, Buckman	Indianapolis	Marion
Gardner, Melvin D.	Michigan City	La Porte
Gardner, Russell A.	Michigan City	La Porte
Garfield, Martin D.	Indianapolis	Marion
Garland, Edgar A.	Evansville	Vanderburgh
Garner, W. Stanley	Indianapolis	Marion
Garner, William H., Jr.	New Albany	Floyd
Garner, William H., Sr. (S)	New Albany	Floyd
Garrett, Robert A.	Indianapolis	Marion
Garrison, James L.	Cumberland	Hancock
Garrison, Leon J.	Gas City	Grant
Garst, Garland R.	Evansville	Vanderburgh
Garton, Harry W. (S)	Fort Wayne	Allen
Garvin, Donald B.	Brazil	Clay
Gastineau, David C.	Fort Wayne	Allen
Gates, George E.	South Bend	St. Joseph
Gattman, George B.	Elkhart	Elkhart
Gatzimos, Christos D.	Wabash	Wabash
Gaul, L. Edward	Evansville	Vanderburgh
Gaunt, Everett W.	Alexandria	Madison
Gaurano, Lauro M.	Indianapolis	Marion
Geckler, Charles E.	Muncie	Delaware-Blackford
Gehring, Thomas A.	Gary	Lake
Geick, Raymond G.	Fort Branch	Gibson
Geider, Roy A.	Indianapolis	Marion
Geiger, Dillon D.	Bloomington	Owen-Monroe
Geisinger, Lewis N. (S)	Auburn	De Kalb
Geisler, Hans E.	Indianapolis	Marion
Geller, Samuel	Evansville	Vanderburgh
Genna, Mary E. Miller	Hale's Corners, Wisc.	Marion
Gentile, John P.	New Albany	Floyd
Gentile, Jonathan P.	Fort Wayne	Allen
George, Charles L.	Indianapolis	Marion
Gerding, William J.	Fort Wayne	Allen
Gerig, Eldon L.	Mishawaka	St. Joseph
Gerrish, Donald A.	Terre Haute	Vigo

Name	City	County
Gerth, Robert E.	Indianapolis	Marion
Gery, Richard E.	Lafayette	Tippecanoe
Getty, William H.	Evansville	Vanderburgh
Gevirtz, Milton B.	Munster	Lake
Gholz, Lawrence M.	Anderson	Madison
Gibbs, Joseph W.	Martinsville	Hendricks
Gibson, Alois E.	Richmond	Wayne-Union
Gibson, Greta Maxine	Indianapolis	Marion
Gibson, Robert K.	Muncie	Delaware-Blackford
Gick, Herman H. (S)	Indianapolis	Marion
Giffin, Charles S.	Fort Wayne	Allen
Gifford, J. Dean	Indianapolis	Marion
Gilbert, Robert G.	Tell City	Perry
Gill, Dee D.	Leesburg	Elkhart
Gill, D. Richard	Huntington	Huntington
Gilles, Pierre	Gary	Lake
Gillespie, Charles F.	Indianapolis	Marion
Gillespie, Garland R.	Brownstown	Jackson-Jennings
Gillespie, Jacob E.	Indianapolis	Marion
Gilliland, John E.	Indianapolis	Marion
Gillim, Parvin D.	Indianapolis	Marion
Gillum, Eugene M.	Portland	Jay
Gilman, Marcus M. (S)	South Bend	St. Joseph
Gilmore, Robert W.	Michigan City	La Porte
Gilmore, Russell A. (S)	Michigan City	La Porte
Gingerick, Charles M.	Liberty Center	Wells
Giorgio, Douglas J.	Evansville	Vanderburgh
Girod, Arthur H.	Decatur	Adams
Girod, Donald A.	Indianapolis	Marion
Gish, Howard M.	Brookston	Tippecanoe
Gitlin, Max M.	Bluffton	Wells
Gitlin, William A.	Bluffton	Wells
Given, Gilbert Z.	East Chicago	Lake
Glackman, John C., Jr.	Rockport	Spencer
Gladstone, Naf H.	Fort Wayne	Allen
Glassley, Stephen H.	Fort Wayne	Allen
Glendening, John L. (S)	Indianapolis	Marion
Glendening, Richard L.	Logansport	Cass
Glock, Maurice E.	Fort Wayne	Allen
Glock, Wayne R.	Fort Wayne	Allen
Glover, John L.	Indianapolis	Marion
Glover, William J.	Gary	Lake
Goebel, Carl W.	Fort Wayne	Allen
Godersky, George E.	South Bend	St. Joseph
Gold, Marvin E.	Valparaiso	Porter
Goldberg, Harold B.	Gary	Lake
Golden, W. Y.	Jeffersonville	Clark
Goldenburg, Mitchell E.	Munster	Lake
Golding, Robert F.	Gary	Lake
Goldman, Samuel	Indianapolis	Marion
Goldsmith, David A.	Marion	Grant
Goldstone, Adolph	Gary	Lake
Goldstone, Arthur	Gary	Lake
Goldstone, Joseph	Gary	Lake
Goldstone, Robert J.	Gary	Lake
Goldstone, Sidney R.	Gary	Lake
Golper, Marvin N.	Kokomo	Howard
Gonzales, Sesinando A.	Whiting	Lake
Good, Richard P.	Kokomo	Howard
Goodell, Charles L.	Muncie	Delaware-Blackford
Goodman, Eli	Charlestown	Clark
Goodman, Hubert T.	Terre Haute	Vigo
Goodrum, William R.	Cayuga	Parke-Vermillion
Goodwin, Thomas	Gary	Lake
Gootee, Francis H.	Jasper	Dubois
Gootee, Thomas H.	Jasper	Dubois
Gordon, Joseph L. (S)	Wheeler	Porter
Gorham, Charles E.	New Paris	Elkhart
Gormley, Joseph J.	Indianapolis	Marion
Gosman, James H.	Indianapolis	Marion
Gossard, Meredith B.	Tipton	Tipton
Gossom, Donn R.	Terre Haute	Vigo
Gould, John C.	Fort Wayne	Allen
Gourieux, E. De Verre	Evansville	Vanderburgh
Govorchin, Alexander	East Chicago	Lake
Graber, Alvin R.	Nappanee	Elkhart
Graber, Benjamin R.	Waterloo	DeKalb
Graber, Martin J.	Berne	Adams
Graber, Virgil R.	Elkhart	Elkhart
Grabow, Emil F.	Munster	Lake
Graessle, Harold P. (S)	Seymour	Jackson-Jennings
Graf, Jerome A.	Bloomfield	Greene
Graf, John P.	South Bend	St. Joseph
Graham, Edward W.	Indianapolis	Marion
Graham, George M.	Fort Wayne	Allen
Graham, James C.	Fort Wayne	Allen
Graham, John D.	Indianapolis	Marion
Graham, William E.	Indianapolis	Marion
Grant, Benjamin F.	Gary	Lake
Grant, M. Arthur	Marion	Grant
Grant, Phyllis A.	New Castle	Henry
Graves, Noel S.	Vevay	Jefferson-Switzerland
Graves, Orville M. (S)	Princeton	Gibson
Gray, Daniel E.	Crown Point	Lake
Gray, Edwin H.	Elkhart	Elkhart
Gray, Howard R.	Indianapolis	Marion
Gray, Kenneth L.	Indianapolis	Marion
Gray, Leon	Martinsville	Morgan
Gray, Mary Case	Elkhart	Elkhart
Gray, William J.	Chesterfield	Madison
Grayson, Merrill	Indianapolis	Marion
Grayson, Ted L.	Indianapolis	Marion
Green, Frank H., Jr.	Rushville	Rush
Green, G. Richard	South Bend	St. Joseph
Green, George F.	South Bend	St. Joseph
Green, Joseph B.	Indianapolis	Marion
Green, Leonard J.	Valparaiso	Porter
Green, Morris	Indianapolis	Marion
Green, Norval E.	South Bend	St. Joseph
Green, Robert F.	Fort Wayne	Allen
Green, William L.	Shelbyville	Shelby
Greenberg, Harry L.	Rensselaer	Jasper
Greene, Frederick G. (S)	Seelyville	Parke-Vermillion
Greene, Morgan E.	Indianapolis	Marion
Greene, Robert W.	Rensselaer	Jasper
Greene, William R.	Henryville	Clark
Greenlee, James R.	Savannah, Ga.	Noble
Greenlee, Joseph A., Jr.	Avilla	Noble
Greenlee, Robert L.	Fort Wayne	Allen
Gregg, Albert F.	Connersville	Fayette-Franklin
Gregg, Edwin E.	Thorntown	Boone
Gregoline, Amadeo F.	Gary	Lake
Gregoline, Eugene	Gary	Lake
Gregory, Delmar R.	Honolulu, Hawaii	Marion
Gregory, Robert L.	Indianapolis	Marion
Greiber, Marvin F.	Muncie	Delaware-Blackford
Greisen, Jack G.	Whiting	Lake
Greist, John H.	Indianapolis	Marion
Grief, James V.	Indianapolis	Marion
Grief, Robert S.	Indianapolis	Marion
Griep, Arthur H.	Evansville	Vanderburgh
Griest, Walter D.	Fort Wayne	Allen
Griffin, Charles G.	Valparaiso	Porter
Griffin, Joseph P.	Chesterton	Porter
Griffin, Leslie W.	Indianapolis	Marion
Griffith, Harold R.	Fort Wayne	Allen
Griffith, James W. (S)	Sheridan	Hamilton
Griffith, Richard S.	Indianapolis	Marion
Griffith, Ross E.	Indianapolis	Marion
Grillo, Donald	South Bend	St. Joseph
Grimes, Hubert N.	Indianapolis	Marion
Grimm, William C. H., Jr.	Evansville	Vanderburgh
Gripe, Richard P.	Lafayette	Tippecanoe
Grisell, Ted L.	Indianapolis	Marion
Grorud, Alton C.	South Bend	St. Joseph

Name	City	County
Gross, Joseph O.	Munster	Lake
Grosso, William G.	East Chicago	Lake
Grosz, Hanus J.	Indianapolis	Marion
Grothouse, Carl B.	Kokomo	Howard
Grove, James H.	South Bend	St. Joseph
Gruber, Charles M.	Indianapolis	Marion
Guckien, Joseph L.	Evansville	Vanderburgh
Guild, John K.	Plymouth	Marshall
Guin, Jere D.	Kokomo	Howard
Gumbert, Jack L.	Ft. Rucker, Ala.	Marion
Gunderson, Shaun D.	Goshen	Elkhart
Gustafson, Milton H.	Muncie	Delaware-Blackford
Gustaitis, John W.	Whiting	Lake
Guthrie, James R.	Richmond	Wayne-Union
Guthrie, James U.	Peru	Miami
Guthrie, William H.	Versailles	Jackson-Jennings
Gutierrez, Peter E.	Crown Point	Lake
Guttman, John B.	Wakarusa	Elkhart
Guzman, Marcelino F.	Morocco	Newton

H

Name	City	County
Haas, Charles F.	Lafayette	Tippecanoe
Habegger, Elmer D.	Indianapolis	Marion
Hachmeister, Charles W.	Evansville	Vanderburgh
Hackett, Walter G.	Fort Wayne	Allen
Hackney, Victor C.	Indianapolis	Marion
Hadey, James H.	Gary	Lake
Hadley, David	Indianapolis	Marion
Haffner, Herman G.	Fort Wayne	Allen
Hagan, Marion L.	French Lick	Orange
Haggard, David B.	Plainfield	Hendricks
Haggard, Edmund B.	Indianapolis	Marion
Haggerty, Fred E.	Greencastle	Putnam
Hagie, Franklin E.	Richmond	Wayne-Union
Haith, John W.	Gary	Lake
Halaby, Fouad A.	Fort Wayne	Allen
Haley, Alvin J.	Fort Wayne	Allen
Haley, George M.	South Bend	St. Joseph
Halfast, Richard W.	Kokomo	Howard
Hall, Bernard R.	Logansport	Cass
Hall, Donald L.	Petersburg	Pike
Hall, Jack H.	Indianapolis	Marion
Hall, James M.	South Bend	St. Joseph
Hall, Robert S.	Muncie	Delaware-Blackford
Hall, Thomas C.	Chesterton	Porter
Hall, William R.	Fort Wayne	Allen
Halleck, Harold J.	Winamac	Pulaski
Haller, Richard C.	Fort Wayne	Allen
Haller, Robert L.	Kempton	Tipton
Haller, Thomas C.	Crawfordsville	Montgomery
Halley, Robert	Gary	Lake
Halum, Ramon G., Jr.	Munster	Lake
Hamer, Homer G. (S)	Indianapolis	Marion
Hamilton, Charles O.	South Bend	St. Joseph
Hamilton, Emory D.	Fort Wayne	Allen
Hamilton, George M.	Fort Wayne	Allen
Hamilton, Howard B.	Indianapolis	Marion
Hamilton, James R.	Mitchell	Lawrence
Hamilton, Thomas	Columbia City	Whitley
Hammel, Howard T.	Bedford	Lawrence
Hammer, Jay W.	Bloomington	Owen-Monroe
Hammer, Michael	East Chicago	Lake
Hammersley, George K.	Frankfort	Clinton
Hammond, R. Case	Evansville	Vanderburgh
Hammond, Stanley	Munster	Lake
Hampshire, Donald R.	Indianapolis	Marion
Hampton, James N.	Argos	Marshall
Han, Daniel	Gary	Lake
Hancock, John G.	Indianapolis	Marion
Haney, William K.	Madison	Jefferson-Switzerland
Hanley, Harriet F.	South Bend	St. Joseph
Hann, Eldon C.	Indianapolis	Marion
Hannah, Thomas A.	Indianapolis	Marion
Hannah, Jack W.	Elkhart	Elkhart
Hanneken, Vincent J.	Wabash	Wabash
Hannemann, Robert E.	Lafayette	Tippecanoe
Hanson, Martin F.	Elwood	Madison
Harcourt, Allan K.	Indianapolis	Marion
Harcourt, Robert S.	Indianapolis	Marion
Hardin, Wayne E.	Ossian	Wells
Harding, M. Richard	Indianapolis	Marion
Harding, Myron S. (S)	Indianapolis	Marion
Hardtke, Eldred F.	Bloomington	Owen-Monroe
Hare, Daniel M.	Evansville	Vanderburgh
Hare, Earl H. (S)	Indianapolis	Marion
Hare, Francis W., Jr.	Madison	Jefferson-Switzerland
Hare, Laura	Indianapolis	Marion
Harger, Robert W.	Indianapolis	Marion
Hargett, Herbert P.	Jeffersonville	Clark
Hargett, Isaac R.	Evansville	Vanderburgh
Harkness, Robert G. (S)	Terre Haute	Vigo
Harlan, William L.	Evansville	Vanderburgh
Harless, Clarence M. (S)	Chesterton	Porter
Harless, O. Fred	Monroeville	Allen
Harmon, Carl J.	Richmond	Wayne-Union
Harnden, Hurlbut L.	Madison	Jefferson-Switzerland
Harned, Ben K., Jr.	Evansville	Vanderburgh
Harper, James W.	East Chicago	Lake
Harrell, Ronald R.	Elkhart	Elkhart
Harris, C. Glenn	South Bend	St. Joseph
Harris, Carl B.	Indianapolis	Marion
Harris, George F.	Madison	Jefferson-Switzerland
Harris, James C.	Indianapolis	Marion
Harris, Neil R.	Goshen	Elkhart
Harris, Paul N.	Greenfield	Marion
Harris, Robert F.	Noblesville	Hamilton
Harris, Robert L.	Evansville	Vanderburgh
Harrison, Benjamin L.	New Castle	Henry
Harshman, James A.	Kokomo	Howard
Harshman, Louis P. (S)	Frankfort	Allen
Harstad, Casper (S)	Rockville	Parke-Vermillion
Hart, L. Paul	Evansville	Vanderburgh
Hart, Robert B.	Columbus	Bartholomew-Brown
Hart, William D.	Anderson	Madison
Hartenbower, David L.	Indianapolis	Marion
Harter, Eli B.	Lafayette	Tippecanoe
Hartley, Clarence A., Jr.	Evansville	Vanderburgh
Hartman, John J.	Angola	Steuben
Hartsough, Ralph I.	Lakeville	St. Joseph
Hartz, F. Minton	Evansville	Vanderburgh
Harvey, Bennett B.	Lafayette	Tippecanoe
Harvey, David M.	Munster	Lake
Harvey, Emerson C., Jr.	Kokomo	Howard
Harvey, Harry C. (S)	Franklin	Allen
Harvey, Hathaway K.	Indianapolis	Marion
Harvey, John C.	Auburn	DeKalb
Harvey, Ralph J. (S)	Zionsville	Boone
Harvey, Verne K., Jr.	Indianapolis	Marion
Harvey, Verne K., Sr.	Zionsville	Marion
Hasewinkel, Carroll W.	Carmel	Marion
Hasewinkle, August M.	Fort Wayne	Allen
Hash, John S.	Noblesville	Hamilton
Hashemi, Hossein	Warsaw	Kosciusko
Haslem, Ezra R.	Terre Haute	Vigo
Haslem, John R.	Terre Haute	Vigo
Hass, Caroline E.	W. Lafayette	Tippecanoe
Hass, Thomas W.	W. Lafayette	Tippecanoe
Hassel, Walter B.	Evansville	Vanderburgh
Hastings, Warren C.	Fort Wayne	Allen
Haswell, John	Vincennes	Knox
Hatfield, Nicholas W.	Indianapolis	Marion
Hathaway, C. Bishop	Auburn	DeKalb
Hattendorf, Anton P.	Fort Wayne	Allen

Name	City	County
Hauersperger, Alfred D.	Columbus	Bartholomew-Brown
Haughn, James E.	Indianapolis	Marion
Haugseth, Ellsworth K.	South Bend	St. Joseph
Havens, A. Lyle	Jeffersonville	Clark
Havens, Thomas R.	Jeffersonville	Clark
Havens, Oscar	Cicero	Hamilton
Havens, Russell E.	Fort Wayne	Allen
Hawes, Marvin E.	Columbus	Bartholomew-Brown
Hawk, Edgar A.	Richmond	Wayne-Union
Hawk, James H.	Indianapolis	Marion
Hawkins, Glen E.	South Bend	St. Joseph
Hawkins, Richard D.	Bedford	Lawrence
Hawthorne, James J.	Indianapolis	Marion
Hay, Gene R.	Michigan City	La Porte
Hayes, Frank W.	Fairfield, Calif.	Lake
Hayes, Jesse D.	East Chicago	Lake
Hayes, Theodore R.	Muncie	Delaware-Blackford
Haymond, George M.	Warsaw	Kosciusko
Haymond, Joseph L.	Indianapolis	Marion
Haynes, John T.	Indianapolis	Marion
Haywood, John G.	Noblesville	Hamilton
Healey, Robert J.	Indianapolis	Marion
Healy, Cornelius E.	Evansville	Vanderburgh
Heard, Albert	Evansville	Vanderburgh
Heasty, Alfred R.	W. Lafayette	Tippecanoe
Heaton, Elton	Madison	Jefferson-Switzerland
Heck, Martin C.	Jasper	Dubois
Heckaman, Edward L.	Pendleton	Madison
Hedde, Eugene L.	Logansport	Cass
Hedgcock, Robert A.	Frankfort	Clinton
Hedrick, James T.	Gary	Lake
Hedrick, Philip W.	Indianapolis	Marion
Hehemann, William V.	Munster	Lake
Heid, George J., Jr.	Lafayette	Tippecanoe
Heilman, William C., Jr.	New Castle	Henry
Heilman, W. C., Sr. (S)	New Castle	Henry
Heimburger, Irvin L.	Evansville	Vanderburgh
Heimburger, Robert F.	Indianapolis	Marion
Heinlein, Carl L.	Danville	Hendricks
Heinrich, Weston A.	Evansville	Vanderburgh
Heiser, Ervin W.	Elkhart	Elkhart
Held, George A.	Jasper	Dubois
Helmen, Charles H.	Indianapolis	Marion
Helmer, John F.	South Bend	St. Joseph
Helveston, Eugene M.	Indianapolis	Marion
Heminway, Norman L.	Elkhart	Elkhart
Hendeles, Frieda R.	Bluffton	Wells
Hendershot, Eugene L.	Evansville	Vanderburgh
Henderson, Francis G.	Indianapolis	Marion
Henderson, Norman C.	Michigan City	La Porte
Henderson, Ramon A.	Muncie	Delaware-Blackford
Henderson, Roscoe C.	Indianapolis	Marion
Hendricks, Fred A.	Indianapolis	Marion
Hendricks, John W.	Indianapolis	Marion
Hendrix, Charles E.	Vincennes	Knox
Henn, R. Anthony	Greenfield	Hancock
Henry, Alvin L.	Columbus	Bartholomew-Brown
Henry, Howard J.	Knox	Starke
Henry, Russell S.	Indianapolis	Marion
Hensler, Benton M.	Anderson	Madison
Hepburn, C. K.	Indianapolis	Marion
Hepner, Herman	Kendallville	Noble
Hepner, Herman S.	Bloomington	Owen-Monroe
Herd, Cloyn R.	Peru	Miami
Herendeen, Elbie V.	Rochester	Fulton
Herendeen, Thomas L.	Fort Wayne	Allen
Heritier, C. Jules	Columbia City	Whitley
Hermann, Harold W.	Evansville	Vanderburgh
Hermayer, Stephen	Evansville	Vanderburgh
Hernandez, Antonio	Shelburn	Sullivan
Hernandez, I. C.	East Chicago	Lake
Herod, Gilbert	Viet Nam	Marion
Herr, John W. (S)	Tell City	Perry
Herrick, Charles L.	Akron	Fulton
Herrmann, Gordon T.	Evansville	Vanderburgh
Herrold, George W.	Lafayette	Tippecanoe
Hershberger, Philip G.	Fort Wayne	Allen
Hershey, Ernest A. (S)	Churubusco	Whitley
Herzberg, Milton	Clinton	Parke-Vermillion
Herzer, Clarence C.	Evansville	Vanderburgh
Hess, Paul P.	New Albany	Floyd
Hetherington, John A.	Terre Haute	Vigo
Hetman, Mitchell J.	Westville	La Porte
Heubi, John E.	Indianapolis	Marion
Heumann, John E.	Evansville	Vanderburgh
Hibbeln, Thomas J.	Indianapolis	Marion
Hibbs, William G.	Franklin	Johnson
Hibner, Dan W.	Richmond	Wayne-Union
Hibner, Nolan A.	Monticello	White
Hibner, Kermit Q.	Bloomington	Owen-Monroe
Hickam, John B.	Indianapolis	Marion
Hickman, Donald M.	Fort Wayne	Allen
Hickman, Jack W.	Indianapolis	Marion
Hicks, Murwyn L.	Indianapolis	Marion
Hicks, Wilbur P.	Indianapolis	Lake
Hieber, Frank R.	Munster	Lake
Higgins, Jack W.	Kokomo	Howard
Higgins, James L.	Petersburg	Pike
Higgins, John R.	New Albany	Floyd
High, Ralph L.	Muncie	Delaware-Blackford
Hilbert, John W. (S)	South Bend	St. Joseph
Hildebrand, John O., Jr.	South Bend	St. Joseph
Hildebrand, William L.	Indianapolis	Marion
Hill, Gladys Marie	Richmond	Wayne-Union
Hill, Herbert N.	Indianapolis	Marion
Hill, James K.	Indianapolis	Marion
Hill, Kenneth G.	New Castle	Henry
Hill, Lloyd L.	Peru	Miami
Hill, Paul G.	Cambridge City	Wayne-Union
Hill, Robert E.	Yorktown	Delaware-Blackford
Hill, Theodore A.	South Bend	St. Joseph
Hill, Wallace C.	South Bend	St. Joseph
Hillenbrand, Charles	Michigan City	La Porte
Hillery, Robert L.	Fort Wayne	Allen
Hillis, Lowell J.	Logansport	Cass
Hillman, Marion W.	Westville	St. Joseph
Hilz, James M.	Indianapolis	Marion
Himebaugh, Gilbert J.	Evansville	Vanderburgh
Himelstein, N. Harvey	Indianapolis	Marion
Himler, James M.	Indianapolis	Marion
Hinchman, Jean F.	Parker	Delaware-Blackford
Hines, Archie V. (S)	Auburn	De Kalb
Hines, John H.	Auburn	De Kalb
Hippensteel, Harland	Auburn	De Kalb
Hippensteel, Russell R. (S)	Culver	Marshall
Hipskind, Richard E.	Fort Wayne	Allen
Hironimus, John E.	Evansville	Vanderburgh
Hirsch, Herman L.	Mt. Vernon	Posey
Hirsch, Melvin L.	Hammond	Lake
Hisrich, Lloyd W.	Batesville	Ripley
Hobbs, Arthur A.	Evansville	Vanderburgh
Hobgood, James L., Jr.	Evansville	Vanderburgh
Hochhalter, Marian	Logansport	Cass
Hodgin, Phillip T.	Orleans	Orange
Hodonos, Phillip E.	Michigan City	LaPorte
Hodurski, Zigfield	Gary	Lake
Hoetzer, Eldore M.	New Haven	Allen
Hoffman, Arthur F.	Fort Wayne	Allen
Hoffman, Doris (S)	Goleta, Calif.	Knox
Hoffman, Herman	Indianapolis	Marion
Hoffman, Max N.	Covington	Fountain-Warren

Name	City	County
Hofmann, J. William (S)	Indianapolis	Marion
Hogan, Michael A.	Indianapolis	Marion
Hogan, Thomas W.	Terre Haute	Vigo
Hogle, Frank D.	Westville	Kosciusko
Hoham, Frederick D.	Portage	Porter
Hoit, Leonard	Gary	Lake
Holdeman, Lillian S.	South Bend	St. Joseph
Holdeman, Richard W.	South Bend	St. Joseph
Holden, Robert W.	Columbus	Bartholomew-Brown
Holladay, Lloyd J.	Lafayette	Tippecanoe
Holland, Philip T.	Bloomington	Owen-Monroe
Holland, William M.	Indianapolis	Marion
Hollenberg, Alfred E.	Hagerstown	Henry
Hollenberg, Edward L.	Winamac	Pulaski
Holliday, Alfonso	Gary	Lake
Holloway, Richard J.	South Bend	St. Joseph
Holman, Jerome E., Jr.	Indianapolis	Marion
Holman, Jerome E., Sr. (S)	Indianapolis	Marion
Holmes, John L.	Muncie	Delaware-Blackford
Holmes, Phillip J.	Madison	Jefferson-Switzerland
Holsinger, Robert E.	Fort Wayne	Allen
Holtzman, Norman N.	South Bend	St. Joseph
Holtzman, Paul W.	Bloomington	Owen-Monroe
Honan, Paul R.	Lebanon	Boone
Hood, Ainslee A.	Indianapolis	Marion
Hoog, John M.	Indianapolis	Marion
Hooker, Donald J.	Ligonier	Noble
Hoopes, Jane M.	Evansville	Vanderburgh
Hoover, Dewey A.	Terre Haute	Vigo
Hoover, J. Guy	Evansville	Vanderburgh
Hoover, Joseph R.	Fort Wayne	Allen
Hoover, Peter B.	Boonville	Warrick
Hopkins, Bruce J.	Indianapolis	Marion
Hopkins, L. H.	Versailles	Ripley
Horlander, Fridolin	Jeffersonville	Clark
Horning, Richard R.	Logansport	Cass
Horst, William N.	Crown Point	Lake
Horswell, Richard G.	Bristol	Elkhart
Horswell, Richard R.	Lafayette	Tippecanoe
Horvath, George A.	South Bend	St. Joseph
Horwitz, Thomas	Indianapolis	Marion
Hostetter, Irwin S.	Muncie	Delaware-Blackford
Houser, D. Stanley	South Bend	St. Joseph
Houshmand, Cyrus	Bloomington	Owen-Monroe
Houston, Fred D.	Lawrenceburg	Dearborn-Ohio
Hovda, Richard B.	Evansville	Vanderburgh
How, Louis E.	South Bend	St. Joseph
Howard, Joseph D.	Culver	Marshall
Howard, William F.	Bloomington	Owen-Monroe
Howard, Wm. Harry (S)	Hammond	Lake
Howe, Fordyce L.	Fort Wayne	Allen
Howell, Arthur	Indianapolis	Marion
Howell, Joseph D.	Indianapolis	Marion
Hoyt, John M.	Kokomo	Howard
Hoyt, Lester H.	Indianapolis	Marion
Hoyt, Millard L.	Indianapolis	Marion
Hrisomalos, Frank N.	Bloomington	Owen-Monroe
Hubbard, Jesse D.	Indianapolis	Marion
Huber, Carl P.	Indianapolis	Marion
Huckleberry, Irvin E. (S)	Salem	Washington
Hudson, Arlington M.	Connersville	Fayette-Franklin
Huebner, Gilbert D.	Bluffton	Wells
Huffman, Galen C.	Bluffton	Wells
Huffman, Verlin P.	S. Whitley	Whitley
Hughes, Anson F.	Lafayette	Tippecanoe
Hughes, Richard R.	Lafayette	Tippecanoe
Hughes, William B.	Waterloo	DeKalb
Huggins, Victor S.	Evansville	Vanderburgh
Hull, DeWayne L.	Fort Wayne	Allen
Hull, James E.	Lafayette	Tippecanoe
Hull, Ronald H.	Indianapolis	Marion
Hummel, Russel M.	Marion	Grant
Hummons, Francis D.	Indianapolis	Marion
Humphrey, Paul E.	Terre Haute	Vigo
Humphreys, Joe E.	Vincennes	Knox
Humphreys, John L.	Charlotte, N. Carolina	Allen
Humphreys, John W.	Crawfordsville	Montgomery
Hunneshagen, Donald E.	Indianapolis	Marion
Hunsberger, Walter G.	Lafayette	Tippecanoe
Hunt, Edgar J. (S)	Terre Haute	Vigo
Hunt, Gayle J.	Richmond	Wayne-Union
Hunter, Dean M.	W. Lafayette	Tippecanoe
Hunter, Donn R.	Greenfield	Hancock
Hunter, Frank P. (S)	Lafayette	Tippecanoe
Hunter, Lowell G.	Lawrenceburg	Dearborn-Ohio
Huoni, John S.	Jeffersonville	Clark
Hurley, James W.	Elkhart	Elkhart
Hurley, John R.	Daleville	Delaware-Blackford
Hurst, Edgar	Bedford	Lawrence
Hurt, LaVerne B.	Delray Beach, Fla.	Marion
Hurteau, William W.	Indianapolis	Marion
Huse, William M.	Indianapolis	Marion
Husted, Robert G.	Munster	Lake
Hutchison, Donald R.	Fountain City	Wayne-Union
Hutson, Richard A.	Indianapolis	Marion
Hutto, William H.	Kokomo	Howard
Hyde, Carroll C. (S)	South Bend	St. Joseph

I

Name	City	County
Imhof, Joseph D.	Muncie	Delaware-Blackford
Ing, Frederic Y. W.	Indianapolis	Marion
Ingram, Richard	Montpelier	Delaware-Blackford
Ingwell, Guy B.	Knox	Starke
Inlow, Paul M.	Shelbyville	Shelby
Inlow, Robert P.	Shelbyville	Shelby
Inlow, William D. (S)	Shelbyville	Shelby
Irish, Wilbur J.	Gary	Lake
Irmscher, George W.	Fort Wayne	Allen
Irmscher, Jane M.	Fort Wayne	Allen
Irvine, William O.	Indianapolis	Marion
Irwin, Glenn W., Jr.	Indianapolis	Marion
Isenogle, Kenneth F.	Fort Wayne	Allen
Iske, Paul G.	Indianapolis	Marion
Isler, Nathaniel C.	Jeffersonville	Clark
Iterman, George E. (S)	New Castle	Henry
Ivy, John H.	Elkhart	Elkhart

J

Name	City	County
Jackson, Charles E.	Bluffton	Wells
Jackson, Dean B.	Hartford City	Delaware-Blackford
Jackson, Howard C.	Madison	Jefferson-Switzerland
Jackson, James W. (S)	Indianapolis	Marion
Jackson, John F.	Fort Wayne	Allen
Jackson, John K.	Aurora	Dearborn-Ohio
Jackson, Kathryn A.	Zionsville	Boone
Jacobo, Miguel J.	East Chicago	Lake
Jacobs, E. Robert	Columbus	Bartholomew-Brown
Jacobs, Rene M.	Coatesville	Putnam
Jacqmain, Ralph J.	Vincennes	Knox
Jahns, Albin A.	Gary	Lake
James, Charles E.	Indianapolis	Marion
James, Thomas, Jr.	Huntington	Huntington
Janes, R. Grant	Connersville	Fayette-Franklin
Janicki, Robert S.	Indianapolis	Marion
Jankowski, Ernest B.	South Bend	St. Joseph

Name	City	County
Jaquith, Orville S. (S)	Indianapolis	Marion
Jarrett, John C.	Marion	Grant
Jarrett, Paul E.	Anderson	Madison
Jaurnig, Russell R.	Bluffton	Wells
Jay, Arthur C.	Indianapolis	Marion
Jay, Arthur N.	Indianapolis	Marion
Jay, James M.	Indianapolis	Marion
Jehanyar, M. Ali	Monticello	White
Jenkins, John E., Jr.	Indianapolis	Marion
Jenkins, Robert E.	Indianapolis	Marion
Jennings, Frank L. (S)	Indianapolis	Marion
Jestadt, John J.	Indianapolis	Marion
Jett, Clyde W.	Seelyville	Vigo
Jewell, George M.	Kokomo	Marion
Jewett, Joe H.	Indianapolis	Howard
Jinnings, Loren E.	Garrett	DeKalb
Jobes, James E.	Indianapolis	Marion
Johns, David R. (S)	Beloit, Wis.	Lake
Johns, Nicholas C.	South Bend	St. Joseph
Johnson, A. Cedric, Jr.	Indianapolis	Marion
Johnson, Arnold L.	Gary	Lake
Johnson, Earl H.	Indianapolis	Marion
Johnson, Edward M.	Terre Haute	Vigo
Johnson, George M.	Richmond	Wayne-Union
Johnson, Herbert S.	Lafayette	Tippecanoe
Johnson, James B.	Greencastle	Putnam
Johnson, Jerome M.	Jeffersonville	Clark
Johnson, Lonnie B. (S)	Gary	Lake
Johnson, Paul D., Jr.	Terre Haute	Vigo
Johnson, Robert D.	Madison	Jefferson-Switzerland
Johnson, Robert L.	Bluffton	Wells
Johnson, Stephen L.	Evansville	Vanderburgh
Johnson, Thomas W.	Indianapolis	Marion
Johnson, Victor	Evansville	Vanderburgh
Johnson, William A.	North Vernon	Jackson-Jennings
Johnson, William H.	Gary	Lake
Johnson, William V.	New Albany	Floyd
Johnston, Richard M.	Fort Wayne	Allen
Johnston, Robert G. (S)	Huntington	Huntington
Jolly, Wesley P. (S)	Richland	Spencer
Jones, Albert T.	Anderson	Madison
Jones, Allen W.	Indianapolis	Marion
Jones, Charles A.	Franklin	Johnson
Jones, David E.	Indianapolis	Marion
Jones, David G.	Anderson	Madison
Jones, David M.	West Lafayette	Tippecanoe
Jones, Eli S. (S)	Hammond	Lake
Jones, Francis P.	Indianapolis	Marion
Jones, George L.	Indianapolis	Marion
Jones, Gordon C.	Indianapolis	Marion
Jones, Horace E.	Anderson	Madison
Jones, J. Carl	Logansport	Cass
Jones, John D.	Indianapolis	Marion
Jones, King S.	Michigan City	La Porte
Jones, Richard A.	Indianapolis	Marion
Jones, Robert B.	Elkhart	Elkhart
Jontz, Joe G.	Fort Wayne	Allen
Jontz, Jon P.	Indianapolis	Marion
Jontz, Richard L.	Fort Wayne	Allen
Jordan, Leo E.	Lynn	Randolph
Jordan, Richard A.	Corydon	Harrison-Crawford
Joseph, Rex M.	Indianapolis	Marion
Jowitt, Richard H.	Indianapolis	Marion
Joyner, John E.	Indianapolis	Marion
Judd, Russell L.	Indianapolis	Marion
Judson, Walter E.	Indianapolis	Marion
Juergens, Richard B.	Fort Wayne	Allen
Jurgensen, Walter T.	Fort Wayne	Allen
Justin, Renate G.	Terre Haute	Vigo

K

Name	City	County
Kabel, Robert N.	Terre Haute	Vigo
Kahler, Maurice V. (S)	Indianapolis	Marion
Kahn, Alexander J.	Indianapolis	Marion
Kahn, Howard L.	Indianapolis	Marion
Kaiser, James L.	Indianapolis	Marion
Kalker, Morton	Muncie	Delaware-Blackford
Kalsbeck, John E.	Indianapolis	Marion
Kaltenthaler, Albert	Gary	Lake
Kamen, Jack M.	Gary	Lake
Kammen, Leo	Indianapolis	Marion
Kammer, Grace C.	Muncie	Delaware-Blackford
Kammer, Walter F.	Muncie	Delaware-Blackford
Kantzer, Floyd B. (S)	Garrett	De Kalb
Karaagac, Ishan A.	New Castle	Henry
Karberg, Richard J.	Lafayette	Tippecanoe
Karn, John W.	South Bend	St. Joseph
Karnafel, Eugene T.	Logansport	Cass
Karol, Herbert J.	Fort Wayne	Allen
Karsell, William A.	Indianapolis	Marion
Kasting, Gerald	Bedford	Lawrence
Katterjohn, James C.	Indianapolis	Marion
Kauffman, Harley M. (S)	Evansville	Vanderburgh
Kauffman, Paul E.	Hesston, Kans.	Allen
Kaufman, Julian R.	Fort Wayne	Allen
Kay, Oran E. (S)	Spencer	Owen-Monroe
Keating, John U.	Indianapolis	Elkhart
Kebel, Arthur P.	Indianapolis	Marion
Keck, Carleton A.	Fort Wayne	Allen
Keeling, Forrest E. (S)	Portland	Jay
Keenan, George B.	Indianapolis	Marion
Keenan, Patrick J.	South Bend	St. Joseph
Keever, Charles H. (S)	Indianapolis	Marion
Kellar, Philip E.	Hobart	Lake
Kelly, Don E.	Indianapolis	Marion
Kelly, George G.	Munster	Lake
Kelly, John B.	Evansville	Vanderburgh
Kelly, Wendell C.	Anderson	Madison
Kelsey, Lawrence E.	Kewanna	Fulton
Kelsey, Robert M., Jr.	La Porte	La Porte
Kemp, John T.	Michigan City	La Porte
Kemp, W. Alfred	Bourbon	Marshall
Kempf, Gerald F. (S)	Kettering, Ohio	Parke-Vermillion
Kendall, Forest M.	Nappanee	Elkhart
Kendall, William R.	Indianapolis	Marion
Kendrick, Frank J.	Gary	Lake
Kendrick, William M.	Mooresville	Morgan
Kennedy, Hunter F.	Indianapolis	Marion
Kennedy, Joseph T.	Indianapolis	Marion
Kennedy, Myron S.	Goshen	Elkhart
Kennedy, Walter U. (S)	New Castle	Henry
Kenney, David B.	Indianapolis	Marion
Kenney, Francis D.	Munster	Lake
Kent, Richard N.	Fort Wayne	Allen
Kenyon, C. Emil	Cambridge City	Wayne-Union
Kenzler, Jack I.	Indianapolis	Marion
Keough, Thomas F.	Warsaw	Kosciusko
Kephart, S. Bruce	Bluffton	Wells
Kepler, Robert W.	La Porte	La Porte
Keplinger, James E.	W. Lafayette	Tippecanoe
Kepner, Robert S.	Anderson	Madison
Kerlin, Joseph C.	Danville	Hendricks
Kern, Clarence G.	Lebanon	Boone
Kerner, Donald J.	Indianapolis	Marion
Kerr, Charlotte H.	Michigan City	La Porte
Kerr, Donald M.	Bedford	Lawrence
Kerr, Harry R. (S)	Indianapolis	Marion
Kerr, John E.	Michigan City	La Porte
Kerrigan, John F.	Michigan City	La Porte
Kerrigan, Robert L. (S)	Michigan City	La Porte
Kerrigan, William F.	Connersville	Fayette-Franklin
Kershner, Charles R.	Marion	Grant
Keseric, N. E.	French Lick	Orange
Kesim, Mufit H.	Elkhart	Elkhart
Keskin, Ibrahim	East Chicago	Lake

Name	City	County
Kessler, Robert B.	Evansville	Vanderburgh
Ketcham, Jane M. (S)	Indianapolis	Marion
Ketcham, John S. (S)	Rossville	Clinton
Keyes, Robert C.	Fort Wayne	Allen
Khalouf, Herbert C.	Marion	Grant
Khalouf, Shirley T.	Marion	Grant
Kidd, James G. (S)	Jefferson, Wis.	Wabash
Kidder, Orva T.	Fort Wayne	Allen
Kiechle, Frederick L.	Evansville	Vanderburgh
Kieffer, William J.	South Bend	St. Joseph
Kielton, Melvyn J.	Elkhart	Elkhart
Kiely, John T.	Anderson	Madison
Kilgore, Byron W.	Ft. Wayne	Allen
Kilmer, Warren L.	Portage	Porter
Kim, Joon S.	La Porte	La Porte
Kim, Young D. (S)	Beech Grove	Marion
Kim, Young S.	Whiting	Lake
Kimble, John W.	Indianapolis	Marion
Kimbrough, Robert F.	Fort Wayne	Allen
Kime, Edwin N. (S)	Bloomington	Marion
Kimmel, George E.	Evansville	Vanderburgh
Kimmel, Louis E., Jr.	Valparaiso	Porter
Kincaid, Raymond K.	Tipton	Tipton
Kincaid, Robert S.	Evansville	Vanderburgh
Kindell, Hurschell D.	New Richmond	Montgomery
KinKade, Paul T.	New Castle	Henry
King, Charles R.	Anderson	Madison
King, Harold	Indianapolis	Marion
King, Robert D.	Indianapolis	Marion
King, Robert W.	Cedar Lake	Lake
Kingsbury, John K. (S)	Indianapolis	Marion
Kinneman, Robert E.	Greenfield	Hancock
Kintner, Burton E.	Elkhart	Elkhart
Kinzer, LeRoy D.	Markle	Wells
Kirby, Ted C.	Greenfield	Hancock
Kirkhoff, Paul J.	Indianapolis	Marion
Kirshman, Forrest E.	Muncie	Delaware-Blackford
Kirtley, James M.	Crawfordsville	Montgomery
Kirtley, Robert W.	Danville	Hendricks
Kirtley, William R.	Indianapolis	Marion
Kissel, Wesley A.	Indianapolis	Marion
Kissinger, Knight L.	Angola	Steuben
Kistler, James J.	La Porte	La Porte
Kistner, Arthur W.	Elkhart	Elkhart
Kitt, Walter	Munster	Lake
Kitterman, Harry E.	Indianapolis	Marion
Klain, Benjamin V.	Indianapolis	Marion
Klamer, Charles H.	Jasper	Dubois
Klassen, Otto D.	Elkhart	Elkhart
Klatch, Ben Z.	Lafayette	Tippecanoe
Klaus, Julius M.	Gary	Lake
Kleifgen, William A.	Fort Wayne	Allen
Kleindorfer, Roscoe L.	Evansville	Vanderburgh
Kleopfer, Ronald G.	Fort Wayne	Allen
Klepfer, Jefferson F.	Richmond	Wayne-Union
Klepinger, Harry E.	Lafayette	Tippecanoe
Klooze, Kenneth W.	Fort Wayne	Allen
Klutinoty, George II	Indianapolis	Marion
Kmak, Chester J.	Gary	Lake
Kneidel, John H.	Indianapolis	Marion
Knight, Lewis W.	Fort Wayne	Allen
Knochel, Wayne L.	Rochester	Fulton
Knode, Kenneth T. (S)	South Bend	St. Joseph
Knotts, Halleck S.	Columbus	Bartholomew-Brown
Knotts, Slater	Seymour	Jackson-Jennings
Ko, Richard C. B.	Gaston	Delaware-Blackford
Kobak, Alfred J., Jr.	Valparaiso	Porter
Kobrin, Meyer W.	Gary	Lake
Koch, Edwin F., Jr.	Muncie	Delaware-Blackford
Koch, Elmer L.	Danville	Hendricks
Koch, Howard W.	Winchester	Randolph
Koehler, Elmer G.	Elkhart	Elkhart
Koenig, Robert L.	Valparaiso	Porter
Kohlstaedt, Karl C.	Indianapolis	Marion
Kohlstaedt, Kenneth G.	Indianapolis	Marion
Kohne, Gerald J.	Decatur	Adams
Kohne, Robert W.	Lafayette	Tippecanoe
Kolanko, Leon A.	Hammond	Lake
Kolettis, John G.	Gary	Lake
Kooiker, John E.	Indianapolis	Marion
Koons, Karl M., Jr.	Indianapolis	Marion
Koons, Karl M. (S)	Indianapolis	Marion
Koontz, William A.	Gas City	Grant
Kopanko, Bernard F.	East Chicago	Lake
Kopcha, Joseph E.	Gary	Lake
Kopecky, Robert R.	Indianapolis	Marion
Kopp, William R.	Anderson	Madison
Koransky, David S.	Hammond	Lake
Korn, Jerome M.	Gary	Lake
Kornafel, L. H.	Indianapolis	Marion
Koss, K. William	Muncie	Delaware-Blackford
Kott, Alexander	Munster	Lake
Kourany, Edgar	Mooresville	Morgan
Kourany, Oscar	Mooresville	Morgan
Krabill, Willard S.	Goshen	Elkhart
Kraft, Bennett	Indianapolis	Marion
Kramer, Paul W.	Indianapolis	Marion
Kraning, Kenneth K.	Kewanna	Fulton
Krause, Frederick	Elkhart	Elkhart
Kreitl, Dorothy R.	Richmond	Wayne-Union
Kremers, George A.	Kokomo	Howard
Kremp, Richard E.	Indianapolis	Marion
Kresler, Leon E.	Kentland	Newton
Kress, James W.	Muncie	Delaware-Blackford
Krieble, William W.	Terre Haute	Vigo
Kriel, William B.	Indianapolis	Marion
Kroczek, Stephen E.	Indianapolis	Lake
Krsek, Archie J.	Hobart	Lake
Krueger, John E.	Fort Wayne	Allen
Krueger, John E.	South Bend	St. Joseph
Krueger, Robert B.	Columbus	Bartholomew-Brown
Krueger, Thomas P.	Indianapolis	Marion
Kruse, Walter E. (S)	Fort Wayne	Allen
Kubik, Francis J.	Michigan City	LaPorte
Kubley, James D.	Plymouth	Marshall
Kudele, Louis T.	Whiting	Lake
Kuhn, Arthur J.	Munster	Lake
Kuhn, Frederick L.	South Bend	St. Joseph
Kuhn, Hedwig S. (S)	Munster	Lake
Kuhn, Robert W.	Wilkinson	Hancock
Kuipers, Fred M.	Lafayette	Tippecanoe
Kunkler, Arnold W.	Terre Haute	Vigo
Kunkler, Joseph (S)	Terre Haute	Vigo
Kunkler, William C. (S)	Terre Haute	Vigo
Kuntz, Herman W.	Indianapolis	Marion
Kurlander, Gerald J.	Indianapolis	Marion
Kurtz, Fred B. (S)	Indianapolis	Marion
Kurtz, Philip L.	Indianapolis	Marion
Kurtz, William A.	Tipton	Tipton
Kwitny, Isadore J.	Indianapolis	Marion

L

Name	City	County
LaBier, Clarence R., Jr.	Terre Haute	Vigo
Lackey, John T.	Hines, Ill.	Marion
Ladig, Donald S.	Fort Wayne	Allen
LaDine, Clarence B.	Indianapolis	Marion
LaDuron, Jules F. (S)	Muncie	Delaware-Blackford
LaFollette, Donald R.	New Albany	Floyd
LaFollette, Forrest R.	Hammond	Lake
LaFollette, James W.	APO San Francisco, Calif.	Marion
LaFollette, Robert E.	New Albany	Floyd
Lahr, Richard E.	Marion	Grant

Name	City	County
Laker, Gene C.	Fort Wayne	Allen
Laker, Richard J.	Fort Wayne	Allen
Lamb, Emmett B.	Indianapolis	Marion
Lamb, J. Leonard	South Bend	St. Joseph
Lamb, Russell W.	Indianapolis	Marion
Lamber, Chet K.	Indianapolis	Marion
Lamey, Paul T.	Anderson	Madison
Lamkin, E. Henry, Jr.	Indianapolis	Marion
Lampe, Elfred H.	Fort Wayne	Allen
Lancet, Robert O.	Terre Haute	Vigo
Land, Richard N.	Anderson	Madison
Landis, Charles B.	Lafayette	Tippecanoe
Landon, David J.	Union City	Randolph
Lands, Robert M.	Portage	Porter
Landwehr, Alfons	Indianapolis	Marion
Lane, C. Elaine	Indianapolis	Marion
Lane, William H.	South Bend	St. Joseph
Lang, Erich K.	Shreveport, La.	Marion
Lang, Jay W.	Indianapolis	Marion
Langohr, John L.	Columbia City	Whitley
Langsam, Charles L.	Evansville	Vanderburgh
Lanman, John U.	Munster	Lake
Lanning, R. Adrian	Noblesville	Hamilton
Lansford, Kenneth G.	La Porte	La Porte
Lardizabal, Jose M.	Bloomfield	Greene
Largaespada, Manuel	Indianapolis	Marion
Larmore, Joseph L.	Anderson	Madison
Larrabee, James F.	Munster	Lake
Larzelere, Henry B.	Marion	Grant
Larson, Goyt O.	La Porte	La Porte
LaSalle, Richard M.	Wabash	Wabash
LaSalle, Robert M., Jr.	Wabash	Wabash
LaSalle, Robert M., Sr.	Wabash	Wabash
Lashmet, Michael H.	Indianapolis	Marion
Lasich, Anthony R.	Indianapolis	Marion
Laubscher, Clarence	Evansville	Vanderburgh
Laudeman, Walter A.	Elwood	Madison
Lautz, Herbert A.	Munster	Lake
Lavengood, Russell W.	Marion	Grant
Lawler, George F. (S)	Long Beach, Miss.	Marion
Lawler, John F.	Evansville	Vanderburgh
Lawrance, Kingsley	San Diego, Calif.	Marion
Lawrence, Gene C.	Orange, Calif.	Marion
Lawrence, James M.	Indianapolis	Marion
Lawrence, Joseph C.	Evansville	Vanderburgh
Lawson, Allan J.	Indianapolis	Marion
Lawson, Lawrence J.	Muncie	Delaware-Blackford
Laycock, Richard M.	Fort Wayne	Allen
Leahey, Jerome M.	Gary	Lake
Leahy, Howard J.	Pendleton	Madison
Leak, Robert H.	Boswell	Benton
Leasure, J. Kent (S)	Indianapolis	Marion
Leatherman, Harter L. (S)	Indianapolis	Marion
Lebioda, Henry S.	Gary	Lake
Lee, Glen Ward	Richmond	Wayne-Union
Lee, James	Terre Haute	Vigo
Lee, John M. (S)	Rushville	Rush
Lee, John W.	Fort Wayne	Allen
Lee, Robert Y.	Valparaiso	Porter
Leffel, James M.	Indianapolis	Marion
Leffler, William T.	Indianapolis	Marion
Lehman, David P.	Kokomo	Howard
Lehman, Evan L.	Indianapolis	Marion
Lehman, Kenneth M.	Topeka	LaGrange
Lehmberg, Otto F. C.	Columbia City	Whitley
Leibundguth, Henry	Evansville	Vanderburgh
Leich, Charles F.	Evansville	Vanderburgh
Leinbach, Earl R.	Hamlet	Starke
Leipold, Jon D.	Indianapolis	Marion
LeMaster, Theodore R.	Indianapolis	Marion
Leming, Ben L.	Fort Wayne	Allen
Lempke, Lloyd W.	Lafayette	Tippecanoe
Lenk, George G.	Fort Wayne	Allen
Lenox, Jack	Lebanon	Boone
Lenyo, Ludimere	Terre Haute	Vigo
Leon, Mario	Holland	Dubois
Leonard, Dale F.	Hagerstown	Wayne-Union
Leroy, Alvin G.	Alexandria	Madison
Leser, Ralph U.	Indianapolis	Marion
Lessure, Alfred P.	Evansville	Vanderburgh
Lester, Vern L.	Mishawaka	St. Joseph
Lett, Emory B.	Loogootee	Daviess-Martin
Lett, James C.	Greencastle	Putnam
Levatin, Bernard I.	South Bend	St. Joseph
Levi, Leon	Indianapolis	Marion
Levin, Eli L. (S)	East Chicago	Lake
Lewis, Earl	Indianapolis	Marion
Lewis, George N.	Gary	Lake
Lewis, James F.	Liberty	Wayne-Union
Lewis, Lucien A.	Gary	Lake
Lewis, Paul S.	Indianapolis	Marion
Lewis, Robert J.	Lawrence	Marion
Ley, Glen D.	Bloomington	Owen-Monroe
Libbert, Edwin L.	Columbus	Bartholomew-Brown
Libunao, Artemio S.	Versailles	Ripley
Lichtenberg, Melvin	Indianapolis	Marion
Liddell, Charles K.	Michigan City	La Porte
Lidikay, Edward C.	Indianapolis	Marion
Life, Homer L.	New Castle	Henry
Lind, Jaap J.	Lafayette	Tippecanoe
Lindenborg, Paul G.	Indianapolis	Marion
Lindsay, Hamlin B.	Washington	Daviess-Martin
Lindseth, Richard E.	Indianapolis	Marion
Ling, John F.	Richmond	Wayne-Union
Lingeman, Byron N. (S)	Crawfordsville	Montgomery
Lingeman, Raleigh E.	Indianapolis	Marion
Link, Charles W., Jr.	Greenwood	Johnson
Link, Goethe (S)	Indianapolis	Marion
Link, William C.	Bloomington	Owen-Monroe
Linson, John C.	Seymour	Jackson-Jennings
Lionberger, John R.	South Bend	St. Joseph
Lipschutz, Harold	Gary	Lake
Lipsey, Alfred J.	Gary	Lake
Liss, Emanuel C.	South Bend	St. Joseph
Littlefield, Paul A.	Indianapolis	Marion
Littlefield, Shirley D.	Indianapolis	Marion
Lloyd, Frank P.	Indianapolis	Marion
Lloyd, Joe R.	Noblesville	Hamilton
Lloyd, Robert P.	Fort Wayne	Allen
Lo, Loretta S. Y.	Terre Haute	Vigo
Lockhart, Jack M.	Connersville	Fayette-Franklin
Lockhart, Philip B.	South Bend	St. Joseph
Lodde, Marvin B.	Indianapolis	Marion
Loehr, William M.	Indianapolis	Marion
Loewenstein, Werner L.	Terre Haute	Vigo
Logan, James Z.	Richmond	Wayne-Union
Logan, Patrick C.	Indianapolis	Marion
Logan, Richard S.	Fort Wayne	Allen
Lohman, Robert M.	Fort Wayne	Allen
Lohoff, Lewis C.	Tell City	Perry
Loh, Hwei-Ya (Chang)	Gary	Lake
Loh, Wei-Ping	Gary	Lake
Long, Keith J.	Hammond	Lake
Long, Malcolm D.	Indianapolis	Marion
Long, Max R.	Marion	Grant
Long, Paul L.	Anderson	Madison
Longshore, Robert E.	Kokomo	Howard
Longstaff, John P.	Evansville	Vanderburgh
Lonngren, Dudley H.	Marion	Grant
Loomis, Charles H.	Richmond	Wayne-Union
Loomis, Norman S.	Indianapolis	Marion
Loop, Frederick A.	Lafayette	Tippecanoe
Lopez, Alfonso	Portland	Jay
Lopez, Filemon P.	Dyer	Lake
Lopez, Santiago A.	Gary	Lake
Lord, Glenn C.	Indianapolis	Marion

Name	City	County
Lord, Thomas J.	Indianapolis	Marion
Lorenty, Thaddeus B.	Gary	Lake
Lorman, James G.	Fort Wayne	Allen
Lo Sasso, Alvin M.	Indianapolis	Marion
Louden, Robert W.	Indianapolis	Marion
Loudermilk, Jack L.	Fort Wayne	Allen
Love, George N.	Indianapolis	Marion
Love, John W.	Madison	Jefferson-Switzerland
Love, V. Logan	Fort Wayne	Grant
Lovell, Martin H. (S)	Gary	Lake
Lovett, Harvey D.	Zionsville	Boone
Loving, Jury B.	New Goshen	Vigo
Lowe, John C.	Indianapolis	Marion
Lozow, David	Indianapolis	Marion
Lucas, Clarence A., Jr.	Indianapolis	Marion
Luce, John W.	Michigan City	LaPorte
Luckey, James E.	Fort Wayne	Allen
Ludwig, Paul E.	Crawfordsville	Montgomery
Luginbill, Howard M.	Indianapolis	Marion
Lukemeyer, George T.	Indianapolis	Marion
Lukemeyer, St. John (S)	Jasper	Dubois
Lundblad, Wilfred M.	Bloomington	Owen-Monroe
Lundeberg, Ralph A.	Griffith	Lake
Lundt, Milo O.	Elkhart	Elkhart
Lunsford, Thomas E.	Indianapolis	Marion
Luros, J. Theodore	Indianapolis	Marion
Luther, William C.	Elkhart	Elkhart
Lutz, Andreas L.	Hammond	Lake
Lutz, Georgianna	Gary	Lake
Luzadder, John E.	New Carlisle	St. Joseph
Lybrook, William B.	Indianapolis	Marion
Lynch, Harold D.	Evansville	Vanderburgh
Lynch, William A.	Indianapolis	Marion
Lynn, Gene E.	Indianapolis	Marion
Lyon, Florence M.	Portland	Jay
Lyon, William C.	Fort Wayne	Allen
Lyons, L. Mason	Terre Haute	Vigo
Lyons, Robert E.	Bloomington	Owen-Monroe
Lytwakiwsky, Anatol	Gary	Lake

M

Name	City	County
MacDonell, Eldred H.	South Bend	St. Joseph
MacDougall, John D.	Indianapolis	Marion
MacKenzie, Pierce	Evansville	Vanderburgh
MacLeod, John K.	South Bend	St. Joseph
MacQuigg, David E.	Edinburg	Johnson
McAdams, Hugh B.	West Lafayette	Tippecanoe
McAdams, Robert	Lafayette	Tippecanoe
McAfee, James R.	Lebanon	Boone
McAleese, George B.	Terre Haute	Vigo
McAlpine, Richard J.	Indianapolis	Marion
McAree, Francis E., Jr.	Indianapolis	Marion
McAtee, Ott B.	Madison	Jefferson-Switzerland
McBride, James S. (S)	Indianapolis	Marion
McBride, Noel S.	Terre Haute	Vigo
McCalla, Charles X.	Paoli	Orange
McCallister, John W.	Fort Wayne	Allen
McCallister, Larry L.	Muncie	Delaware-Blackford
McCallum, Donald C.	Indianapolis	Marion
McCallum, Joseph T. C. (S)	Indianapolis	Marion
McCallum, Robert N.	Indianapolis	Marion
McCammon, Robert E.	Homestead AFB, Fla.	Marion
McCarthy, Daniel F., Jr.	Indianapolis	Marion
McCartney, Donald H.	Indianapolis	Marion
McCarty, Virgil	Princeton	Gibson
McCaslin, Charles W.	Bluffton	Wells
McClain, Edwin S.	Indianapolis	Marion
McClain, Marvin L.	Scottsburg	Scott
McClary, Charles W.	Bloomington	Owen-Monroe
McClintock, James A.	Muncie	Delaware-Blackford
McClure, Clark	Knox	Starke
McClure, Glen	Sullivan	Sullivan
McClure, Morris E.	Union City	Randolph
McClure, Stanley E.	Monon	White
McClure, Warren N.	Kokomo	Howard
McConnell, William C.	Sunman	Ripley
McCool, Joseph H.	Evansville	Vanderburgh
McCormick, Charles O., Jr.	Indianapolis	Marion
McCormick, Hubert D. (S)	Vincennes	Knox
McCoy, Roy R.	Fort Wayne	Allen
McCraley, William J.	South Bend	St. Joseph
McCrea, Fred R.	Terre Haute	Vigo
McCullough, Henry G.	Columbus	Bartholomew-Brown
McCullough, James Y.	New Albany	Floyd
McDaniel, Edwin C.	Indianapolis	Marion
McDonald, Frank C.	New Castle	Henry
McDonald, Joseph D.	Evansville	Vanderburgh
McDonald, Virgil G. (S)	Anderson	Madison
McDonald, Walter E.	Gary	Lake
McDougal, Robert A.	Indianapolis	Marion
McDowell, Fletcher W.	Muncie	Delaware-Blackford
McDowell, George A.	Fort Wayne	Allen
McDowell, Mordecai M.	Vincennes	Knox
McEachern, Cecil G.	Fort Wayne	Allen
McElroy, James S.	New Castle	Henry
McElroy, James T.	Indianapolis	Marion
McElroy, Robert S.	Princeton	Gibson
McEwen, James W.	Terre Haute	Vigo
McFadden, James M.	Lafayette	Tippecanoe
McFarland, Corley B.	South Bend	St. Joseph
McGrath, Michael F.	Indianapolis	Marion
McGue, Frank J.	Michigan City	La Porte
McGuire, D. F. (S)	East Chicago	Lake
McIlroy, Richard J.	Richmond	Wayne-Union
McIndoo, Ralph E. (S)	Kokomo	Howard
McInerney, Gerald T.	Michigan City	LaPorte
McIntire, Clarence R.	Bloomington	Owen-Monroe
McIntosh, Wilbert	Riley	Vigo
McIntyre, Charles J. (S)	Indianapolis	Marion
McIntyre, James M.	Indianapolis	Marion
McKechnie, Robert K.	Jeffersonville	Clark
McKee, Harry G.	Rushville	Rush
McKee, Roy G.	New Castle	Henry
McKeeman, Donald H.	Fort Wayne	Allen
McKeever, Joseph W.	Marion	Grant
McKinley, A. David	Indianapolis	Marion
McKinley, Joseph	Lafayette	Tippecanoe
McKinney, Daniel H.	Omaha, Neb.	Tippecanoe
McKinney, Donald L.	Otterbein	Benton
McKittrick, Jack	Washington	Daviess-Martin
McLaren, Daniel E.	Indianapolis	Marion
McLaughlin, Gordon C.	Terre Haute	Vigo
McLaughlin, James R.	Warren	Huntington
McLelland, Mary E.	Bloomington	Owen-Monroe
McMahan, Virgil C.	Vincennes	Knox
McMath, Samuel B.	Gary	Lake
McMeel, James	South Bend	St. Joseph
McNaughton, Lawrence	Washington	Daviess-Martin
McNeely, Matthew J.	Dillsboro	Dearborn-Ohio
McNutt, Cyrus C.	Beech Grove	Marion
McPherson, Richard C.	Lafayette	Tippecanoe
McQuade, John A.	South Bend	St. Joseph
McQuiston, Ralph J.	Indianapolis	Marion
McReynolds, Charles R.	Mt. Vernon	Posey
McTurnan, Robert W.	Indianapolis	Marion
McVey, Clarence A. (S)	Hammond	Lake
McWilliams, William B. (S)	Liberty	Wayne-Union
Machledt, John H.	Greenwood	Johnson
Macias, Rafael	South Bend	St. Joseph
Mackel, Frederick O.	Fort Wayne	Allen

Name	City	County
Mackey, John E.	Indianapolis	Marion
Macri, Paul A.	Mishawaka	St. Joseph
Macy, George W.	Columbus	Bartholomew-Brown
Madlang, Rodolfo M.	Munster	Lake
Madden, Robert J.	Indianapolis	Marion
Mader, John H.	Richmond	Wayne-Union
Madtson, A. Ricks	Indianapolis	Marion
Magnuson, Charles W.	South Bend	St. Joseph
Mahank, Camiel C.	Mishawaka	St. Joseph
Makovsky, Theodore	Valparaiso	Porter
Malloy, Francis E., Jr.	Indianapolis	Marion
Malone, Leander A.	Terre Haute	Vigo
Malott, Fred R.	Converse	Grant
Malouf, Stephen D. (S)	Bloomington, Ill.	Miami
Manalo, Francisco S.	Gary	Lake
Manders, Karl L.	Indianapolis	Marion
Manhart, Doyle B.	Sheridan	Hamilton
Manifold, Harold M.	Bloomington	Owen-Monroe
Manion, Marlow W.	Indianapolis	Marion
Mankin, William J.	Terre Haute	Vigo
Manley, Floyd	Hammond	Lake
Mann, Mortimer	Indianapolis	Marion
Mann, Richard E.	Fort Wayne	Allen
Manning, George C.	Fort Wayne	Allen
Manning, K. Randolph	Indianapolis	Marion
Mannion, Rodney A.	Michigan City	La Porte
Manship, C. Stanley	Hardinsburg	Washington
Mansueto, Mario D.	Munster	Lake
Manzie, Michael W.	Indianapolis	Marion
Maple, James B. (S)	Sullivan	Sullivan
Marchand, Edwin V. (S)	Haubstadt	Gibson
Marchant, Clarence H.	Bloomington	Owen-Monroe
Marcus, Morris C. (S)	Gary	Lake
Maris, Lee J.	Attica	Fountain-Warren
Mark, George A.	Elkhart	Elkhart
Markle, Joseph G.	Hobart	Lake
Marks, Howard H.	Huntington	Huntington
Marks, John S., Jr.	Indianapolis	Marion
Marks, Ora L.	East Chicago	Lake
Marks, Salvo P.	Hammond	Lake
Markstone, David H.	Portsmouth, Va.	Marion
Maroc, James A.	Munster	Lake
Marquinez, Adoracion	East Chicago	Lake
Marquinez, Apolinario A.	Highland	Lake
Marquis, Gordon	South Bend	St. Joseph
Marr, Griffith	Columbus	Bartholomew-Brown
Marsh, Carl M.	Indianapolis	Marion
Marsh, George W.	Lafayette	Tippecanoe
Marshall, Albert L., Jr.	Indianapolis	Marion
Marshall, Caesar L.	Fort Wayne	Allen
Marshall, Cavins R. (S)	Indianapolis	Marion
Marshall, Millard R.	Gary	Lake
Marshall W. J., Jr.	Munster	Lake
Marske, Robert L.	Michigan City	La Porte
Martin, Allen S.	Boonville	Warrick
Martin, Charles F., Jr.	South Bend	St. Joseph
Martin, Floyd S.	Goshen	Elkhart
Martin, Hugh E.	Indianapolis	Marion
Martin, Joe M.	W. Lafayette	Tippecanoe
Martin, Loren H.	Indianapolis	Marion
Martin, Noel J.	Shipshewana	LaGrange
Martin, Paul H.	Elkhart	Elkhart
Martin, Samuel W.	Corydon	Harrison-Crawford
Martino, Robert S.	Gary	Lake
Martinov, William E.	South Bend	St. Joseph
Martirez, N. A.	East Chicago	Lake
Martz, Bill L.	Indianapolis	Marion
Martz, Carl D.	Indianapolis	Marion
Marvel, Howard R.	Lafayette	Tippecanoe
Marvel, James A.	Evansville	Vanderburgh
Marvel, Robert J.	Indianapolis	Marion
Masbaum, Ned P.	Portsmouth, N. H.	Marion
Maschmeyer, Robert H.	Logansport	Cass
Mason, Bernard A.	South Bend	St. Joseph
Mason, Donald G.	Angola	Steuben
Mason, Earl	Gary	Lake
Mason, Everett E.	Evansville	Vanderburgh
Mason, John C.	Munster	Lake
Mason, Lester M.	Terre Haute	Vigo
Mason, Richard L.	Hammond	Lake
Massanari, Walter S.	Millersburg	Elkhart
Masters, John M.	Indianapolis	Marion
Masters, Robert J. (S)	Indianapolis	Marion
Mastrangelo, M. J.	Fort Wayne	Allen
Mather, Charles R.	Lafayette	Tippecanoe
Mather, Glenn B.	Bloomington	Owen-Monroe
Mather, J. Winford	East Gary	Lake
Mather, Robert L.	Lafayette	Tippecanoe
Mathews, James R.	Evansville	Vanderburgh
Mathewson, Russell C.	Muncie	Delaware-Blackford
Matthew, John R.	Westville	La Porte
Matthew, W. Burleigh	Indianapolis	Marion
Matthews, Bernard J.	Indianapolis	Marion
Matthews, William M.	Indianapolis	Marion
Mattox, Dean L.	Howe	LaGrange
Mattox, Don M.	Terre Haute	Vigo
Matzen, Richard N.	Bluffton	Wells
Maurer, J. Frank	Brazil	Clay
Maurer, Robert M.	Brazil	Clay
Mauricio, Amado S. A.	Rising Sun	Dearborn-Ohio
Mauzy, Merritt C.	South Bend	St. Joseph
Maxam, B. T.	Indianapolis	Marion
Maxson, Roy V.	Kokomo	Howard
Maxwell, Sam B.	Indianapolis	Marion
May, A. J.	New Castle	Henry
May, R. Milton	Laconia	Harrison-Crawford
May, William D.	New Albany	Floyd
Mayock, Peter P.	Bluffton	Wells
Mayorga, Alfredo	Gary	Lake
Mead, Frank E.	La Porte	La Porte
Mealey, John, Jr.	Indianapolis	Marion
Medcalf, Norman L. (S)	Lamar	Spencer
Megenhardt, Dennis S.	Indianapolis	Marion
Mehne, Richard G.	Brazil	Clay
Meier, Donald W.	Bluffton	Wells
Meiks, Lyman T.	Indianapolis	Marion
Meiser, Robert D.	Huntington	Huntington
Meissel, Robert L.	Terre Haute	Vigo
Meister, Doris (S)	Anderson	Madison
Mejia, Ivan	Fort Wayne	Allen
Melin, John R.	Indianapolis	Marion
Mellinger, Michael O.	LaGrange	LaGrange
Mendelson, Stanley M.	Kokomo	Howard
Mendez, Carlos	Westville	LaPorte
Mensch, James R.	Fort Wayne	Allen
Mentendiek, Maurice H.	Indianapolis	Marion
Mentzer, William G.	Lafayette	Tippecanoe
Mercer, Samuel R.	Fort Wayne	Allen
Mericle, Earl W.	Indianapolis	Marion
Mernitz, Roland B., Jr.	Wabash	Wabash
Merritt, A. Donald	Indianapolis	Marion
Mershon, Jack B.	Indianapolis	Marion
Mertz, Henry O. (S)	Atlanta, Ga.	Marion
Mertz, John H. O.	Indianapolis	Marion
Messer, Frank W.	Kendallville	Noble
Messinger, Alan J.	Zionsville	Boone
Metcalfe, Grant E.	South Bend	St. Joseph
Meyer, Claude J.	Sellersburg	Clark
Meyer, Hans	Westville	La Porte
Meyer, Herman A.	Fort Wayne	Allen
Meyer, Theodore O.	Fort Wayne	Allen
Michael, Isaac E.	Indianapolis	Marion
Michael, Robert L.	Kokomo	Howard
Michaelis, Stephen C.	Fort Wayne	Allen
Middleton, Harvey N. (S)	Indianapolis	Marion

Name	City	County
Middleton, Ramona J.	Elkhart	Elkhart
Middleton, Thomas O	Bloomington	Owen-Monroe
Miethke, Richard P.	Anderson	Madison
Miklozek, John E.	Terre Haute	Vigo
Milan, Joseph F.	Bloomington	Owen-Monroe
Milan, Shijachki D.	East Chicago	Lake
Millan, Felix	Indianapolis	Marion
Miller, Albert J.	Lafayette	Tippecanoe
Miller, Charles L.	Vincennes	Knox
Miller, Dan T. (S)	Fowler	Benton
Miller, Don E.	Fort Wayne	Allen
Miller, Donald C.	Cedar Lake	Lake
Miller, Edward D.	Birmingham, Ala.	Allen
Miller, Frank H.	Indianapolis	Marion
Miller, Galen R.	Elkhart	Elkhart
Miller, Gerald L.	Markle	Wells
Miller, H. Allison	Marion	Grant
Miller, H. Paul	Fort Wayne	Allen
Miller, Harold E.	Seymour	Jackson-Jennings
Miller, Harold L.	Richmond	Wayne-Union
Miller, Hugh A., Jr.	Elkhart	Elkhart
Miller, James	Wakarusa	Elkhart
Miller, James C.	Greensburg	Decatur
Miller, Jerry A.	Indianapolis	Marion
Miller, Jerry R.	Indianapolis	Marion
Miller, John D.	Indianapolis	Marion
Miller, Joseph A.	Oaklandon	Hancock
Miller, Kenneth D.	Woodburn	Allen
Miller, L. Hoyt	Indianapolis	Marion
Miller, LaVerne B.	Evansville	Vanderburgh
Miller, Mahlon F.	Fort Wayne	Allen
Miller, Marshall S.	Evansville	Vanderburgh
Miller, Maurice	Michigan City	La Porte
Miller, Milton J.	Evansville	Vanderburgh
Miller, Orval J.	Fort Wayne	Allen
Miller, Ray D.	Martinsville	Morgan
Miller, Richard C.	Shelbyville	Shelby
Miller, Richard H.	Fort Wayne	Allen
Miller, Robert B.	Fort Wayne	Allen
Miller, Robert J.	Paragon	Morgan
Miller, Roland E.	Lafayette	Tippecanoe
Miller, Roscoe E.	Indianapolis	Marion
Miller, Samuel T. (S)	Elkhart	Elkhart
Miller, Virgil C.	Akron	Fulton
Miller, Wayne S.	Huntington	Huntington
Miller, William A. (S)	Hagerstown	Henry
Miller, William J.	Fort Wayne	Allen
Miller, William J.	Lafayette	Tippecanoe
Milleson, Ann L. M.	Terre Haute	Vigo
Millis, Arthur B.	Richmond	Wayne-Union
Millis, Samuel C.	Crawfordsville	Montgomery
Mills, Fred E.	Evansville	Vanderburgh
Mills, John F.	Wabash	Wabash
Milne, Walter S.	Michigan City	La Porte
Milos, Robert J.	Gary	Lake
Minczewski, Richard C.	Gary	Lake
Minich, William G.	Newport	Parke-Vermillion
Minick, Linus J.	Churubusco	Whitley
Mininger, Edward P.	Elkhart	Elkhart
Mino, Robert A.	Evansville	Vanderburgh
Minter, Donald L.	Goshen	Elkhart
Mintz, Alfred M.	Munster	Lake
Mirich, Ernest C.	Crown Point	Lake
Mirro, John A.	Gary	Lake
Misch, William	Cedar Lake	Lake
Mishkin, Irving	Elkhart	Elkhart
Mishler, Joe B.	Pierceton	Whitley
Mitchell, George H.	Indianapolis	Marion
Mitchell, George L. (S)	Smithville	Owen-Monroe
Mitchell, Georgia B.	Gary	Lake
Mitchell, John B.	Evansville	Vanderburgh
Mitchell, John R.	Terre Haute	Vigo
Mladick, Edward A.	Michigan City	La Porte
Moak, Glenn D.	Indianapolis	Marion
Moats, Carl F.	Fort Wayne	Allen
Moats, George E. (S)	Fort Wayne	Allen
Mock, Harry E., Jr.	Franklin	Johnson
Mock, L. Farrell	Bluffton	Wells
Modisett, Jackson W.	Madison	Jefferson-Switzerland
Modisett, Marcella S.	Madison	Jefferson-Switzerland
Modjeski, Joseph R.	Hammond	Lake
Moe, John F.	Indianapolis	Marion
Moeller, Victor C.	Fort Wayne	Allen
Moenning, John E.	Oaklandon	Hancock
Moheban, Joseph	Shelbyville	Shelby
Mohler, Floyd W.	Columbus	Bartholomew-Brown
Molengraft, Cornelius J.	Gary	Lake
Moleski, Walter L.	APO, San Francisco, Calif.	Lake
Monar, Michael	Rockport	Spencer
Moneyhun, James E.	Anderson	Madison
Monroe, F. Bruce	Crown Point	Lake
Montes, Herminio Y.	Hammond	Lake
Montgomery, Lall G.	Muncie	Delaware-Blackford
Montgomery, Ralph F.	Muncie	Delaware-Blackford
Montgomery, Samuel B. (S)	Cynthiana	Posey
Montgomery, W. Foster	Washington, D.C.	Marion
Moon, Charles E.	Center Point	Clay
Moore, Donald F.	Indianapolis	Marion
Moore, Edwin G.	Gary	Lake
Moore, Gene	Terre Haute	Vigo
Moore, Harold T.	Indianapolis	Marion
Moore, Jack C.	Muncie	Delaware-Blackford
Moore, John M.	Kokomo	Howard
Moore, Robert G.	Vincennes	Knox
Moore, William C. (S)	Muncie	Delaware-Blackford
Moore, William G.	La Porte	La Porte
Moores, William B.	Indianapolis	Marion
Moosey, Louis	Union Mills	La Porte
Moran, Thomas E.	Indianapolis	Marion
Moran, William J.	Camp Lejeune, N. Carolina	Marion
Morchan, Samuel	Indianapolis	Marion
Morec, George J.	New Castle	Henry
Morey, Edwin E.	Fort Wayne	Allen
Morford, Guy	Bloomington	Owen-Monroe
Morgan, Margaret E.	Indianapolis	Marion
Morgan, Milton M.	Fort Wayne	Allen
Moriarty, John R.	Indianapolis	Marion
Morrical, Russell J.	Logansport	Cass
Morris, Edward D., Jr.	Deputy	Jefferson-Switzerland
Morris, Hyman R.	Gary	Lake
Morris, Jean W.	Muncie	Delaware-Blackford
Morris, Robert A.	Anderson	Madison
Morris, Warren V.	Monticello	White
Morris, William H.	Munster	Lake
Morrison, George G., Jr.	Lawrenceburg	Dearborn-Ohio
Morrison, James T.	Greensburg	Decatur
Morrison, Lewis E.	Indianapolis	Marion
Morrow, Robert J.	Bedford	Lawrence
Mortenson, Leland J. (S)	Fort Wayne	Allen
Morton, Joseph L.	Indianapolis	Marion
Morton, Philip M.	Indianapolis	Marion
Morton, Walter P. (S)	Indianapolis	Marion
Moser, Arthur L.	Warsaw	Kosciusko
Moser, Elmer B. (S)	Windfall	Tipton
Moser, Rollin H. (S)	Land O'Lakes, Wis.	Marion
Moses, George E. (S)	Worthington	Greene
Moses, Robert E.	Worthington	Greene
Moss, Bobby L.	Indianapolis	Marion

Name	City	County
Moss, Harlan B.	Indianapolis	Marion
Moss, Herschel C.	Indianapolis	Marion
Moss, Mavor J.	Yorktown	Delaware-Blackford
Moswin, Jack A.	Gary	Lake
Mothersill, Mark H. (S)	Indianapolis	Marion
Mott, Cassell A. (S)	South Bend	St. Joseph
Mott, William H.	Gary	Lake
Moulton, Lillian G.	Evansville	Vanderburgh
Mount, Mathias S.	Bloomfield	Greene
Mount, William M.	Lafayette	Tippecanoe
Mountain, Francis B.	Connersville	Fayette-Franklin
Mouser, Robert W.	Indianapolis	Marion
Mudd, Joseph P.	Clarksville	Clark
Mudrony-Szoke, Jeno B.	Bluffton	Wells
Muelchi, Adeline F. (S)	Evansville	Vanderburgh
Mullen, James B.	Indianapolis	Marion
Mueller, Edwin C.	La Porte	La Porte
Mueller, Hilbert M.	South Bend	St. Joseph
Mueller, Lawrence W.	Fort Wayne	Allen
Mukhtar, Fuad A.	Lebanon	Boone
Muller, Lullus P.	Indianapolis	Marion
Muller, Paul F.	Indianapolis	Marion
Muller, Victor H.	Indianapolis	Marion
Mullican, William S.	Evansville	Vanderburgh
Munoz, Jose C.	Marion	Grant
Murdock, Harvey L. (S)	Fort Wayne	Allen
Murphy, Edward U.	Evansville	Vanderburgh
Murphy, Joseph F.	Lansing, Ill.	Lake
Murphy, Josephine F.	South Bend	St. Joseph
Murphy, Mary M.	Indianapolis	Marion
Murray, Ernest C.	Kokomo	Howard
Murray, John S.	Vincennes	Knox
Murray, Raymond H.	Indianapolis	Marion
Murray, William E.	New Castle	Henry
Musselman, Glen G.	Terre Haute	Vigo
Musselman, Lawrence K.	Marion	Grant
Myer, Claude	Sellersburg	Clark
Myers, Charles W. (S)	Indianapolis	Marion
Myers, Philip R.	South Bend	St. Joseph
Myers, Roy V. (S)	West Palm Beach, Fla.	Marion

N

Name	City	County
Nagan, Robert F.	Indianapolis	Marion
Nason, Robert A.	Garrett	De Kalb
Nasser, William K.	Indianapolis	Marion
Navin, Hugh K.	Fortville	Hancock
Navarre, Vincent J.	Munster	Lake
Nay, Ernest O. (S)	Terre Haute	Vigo
Nay, Richard M.	Indianapolis	Marion
Nazon, Yvon J.	Gary	Lake
Neal, Leonard W.	Munster	Lake
Neale, Alfred E.	Anderson	Madison
Neathamer, Thomas A.	Scottsburg	Scott
Nedelkoff, Bogdan	New Albany	Floyd
Need, David J.	Indianapolis	Marion
Need, Louis T.	Indianapolis	Marion
Need, Richard L.	Indianapolis	Marion
Neher, John L.	South Bend	St. Joseph
Neidballa, Edward G.	Bristol	Elkhart
Neifert, Noel L.	Tell City	Perry
Nelson, Carl A.	West Lebanon	Fountain-Warren
Nelson, F. Dale	South Bend	St. Joseph
Nelson, Harold E.	Muncie	Delaware-Blackford
Nelson, Raymond E.	South Bend	St. Joseph
Nelson, Robert	South Bend	St. Joseph
Nelson, Walfred A.	Gary	Lake
Nenneker, Henry (S)	Evansville	Vanderburgh
Nesbit, Leonard L.	Anderson	Madison
Nester, Henry G.	Indianapolis	Marion
Neudorff, Louis G.	Terre Haute	Vigo
Neukamp, Frank H.	Connersville	Fayette-Franklin
Neumann, Kenneth O.	Lafayette	Tippecanoe
Newby, Eugene	Sheridan	Hamilton
Newcomb, William K.	Royal Center	Cass
Newman, Alvin E. (S)	Ft. Lauderdale, Fla.	Vanderburgh
Newman, Daniel M.	Indianapolis	Marion
Newnam, Philip E.	Muncie	Delaware-Blackford
Newnum, Raymond L.	Evansville	Vanderburgh
Newsome, C. K.	Evansville	Vanderburgh
Newton, Roger E.	Evansville	Vanderburgh
Niccum, Warren L.	Columbia City	Whitley
Nicholas, Dennis J.	Indianapolis	Marion
Nichols, Anne Sackett	Greencastle	Putnam
Nichols, Harold G.	South Bend	St. Joseph
Nichols, Robert J.	Vincennes	Knox
Nichols, William F.	Indianapolis	Marion
Nicholson, Raymond W.	Evansville	Vanderburgh
Nicosia, John B.	East Chicago	Lake
Nie, Louis W.	Indianapolis	Marion
Niedermayer, Alfred J.	Evansville	Vanderburgh
Nigh, Rufus M.	Fairland	Shelby
Nill, John H.	Fort Wayne	Allen
Nixon, Byron (S)	Farmland	Randolph
Noblitt, James S. (S)	Rockville	Parke-Vermillion
Noe, Joseph T.	East Chicago	Lake
Noe, William R.	Bedford	Lawrence
Nohl, John M.	Indianapolis	Marion
Nolan, Gerald R.	Fort Wayne	Allen
Nolan, Robert B.	Zionsville	Marion
Nolin, Richard T.	Indianapolis	Marion
Nolting, Henry F. (S)	Indianapolis	Marion
Nonte, Leo R.	Evansville	Vanderburgh
Noonan, Leo C.	Valparaiso	Porter
Norman, William H.	Indianapolis	Marion
Norris, Marvin G.	Rushville	Rush
Norris, Max S.	Indianapolis	Marion
Norton, Harold J.	Columbus	Bartholomew-Brown
Norton, Horace O.	Washington	Daviess-Martin
Nourse, Myron H.	Indianapolis	Marion
Novak, Clarence G.	Michigan City	LaPorte
Noveroske, Richard J.	Princeton	Gibson
Novy, Charles A.	Garrett	De Kalb
Nugen, Harold	Auburn	De Kalb
Nugent, Edwin J.	Indianapolis	Marion
Nunez, Gilbert T.	Hammond	Lake
Nurnberger, John I.	Indianapolis	Marion
Nutter, Wyndham H.	Rushville	Rush
Nuval, Augusto J.	Gary	Lake

O

Name	City	County
Oak, David D., Jr.	Hanna	La Porte
Oak, David D., Sr. (S)	LaCrosse	La Porte
Oatman, Jack G.	Fort Wayne	Allen
Oberlander, Seymour	Gary	Lake
O'Brian, Earl J.	Indianapolis	Marion
O'Brian, John F.	Fort Wayne	Allen
O'Brien, Francis E.	Rensselaer	Jasper
O'Brien, Raymond J.	Michigan City	La Porte
O'Bryan, Richard B.	Columbus	Bartholomew-Brown
Oca, Clemente F.	Jeffersonville	Clark
Ochsner, Harold C.	Indianapolis	Marion
Ockermann, Kenneth R.	Rensselaer	Jasper
O'Connell, Noreen M.	Indianapolis	Marion
O'Donovan, Cornelius J.	Elkhart	Elkhart
Offutt, Andrew C.	Indianapolis	Marion
Ogle, Robert W.	Greenwood	Johnson
Olcott, Charles W.	Aurora	Dearborn-Ohio
Oldag, George E.	Elwood	Madison
Oliphant, Robert W.	Terre Haute	Vigo
Olivo, Marciano T.	Gary	Lake
Olson, Donald T.	South Bend	St. Joseph
Olson, Kenneth L.	South Bend	St. Joseph
Olson, Leslie D.	Gary	Lake

Name	City	County
Olvey, Ottis N.	Indianapolis	Marion
O'Malley, Patrick F.	South Bend	St. Joseph
Omstead, Milton	Petersburg	Pike
O'Neill, Martin J.	Valparaiso	Porter
Onderak, Edward P.	Valparaiso	Porter
Onorato, Joseph J.	Lafayette	Tippecanoe
Onyett, Harold R.	Greenwood	Marion
Oren, William F.	South Bend	St. Joseph
Ornelas, Joseph P.	Gary	Lake
O'Rourke, Carroll	Fort Wayne	Allen
Orr, W. Robert	Mishawaka	St. Joseph
Ortiz, Ramon	Fort Wayne	Allen
Osborne, John V.	Muncie	Delaware-Blackford
Oster, Jack H.	Westville	La Porte
Ostheimer, George	Martinsville	Morgan
Oswald, Robert H.	Evansville	Vanderburgh
Oswalt, James T.	Mitchell	Lawrence
Otten, Claude F.	Indianapolis	Marion
Overley, Ross A.	Indianapolis	Marion
Overley, Toner M., Jr.	Indianapolis	Marion
Overpeck, George H. (S)	Alexandria	Madison
Overshiner, Lyman (S)	Columbus	Bartholomew-Brown
Owen, John E.	Indianapolis	Marion
Owen, Thomas F.	Alexandria	Madison
Owens, Tracy C.	Indianapolis	Marion
Owens, Walter L.	Bloomington	Owen-Monroe
Owsley, Guy A.	Hartford City	Delaware-Blackford
Owsley, William	Muncie	Delaware-Blackford

P

Name	City	County
Pace, Jerome V. (S)	Indianapolis	Parke-Vermillion
Paff, William A.	Elkhart	Elkhart
Paine, George E.	Elkhart	Elkhart
Painter, Donald S.	Fort Wayne	Allen
Painter, Lowell W.	Winchester	Randolph
Pairitz, Frank D.	South Bend	St. Joseph
Paje, Alfredo Q.	Greensburg	Decatur
Palmer, Barron M. F.	Hammond	Lake
Palmer, Harley P.	Franklin	Johnson
Palmer, Robert M.	Indianapolis	Marion
Palmer, Robert W.	Indianapolis	Marion
Palmer, W. Allen	Knox	Starke
Panares, Solomon V.	Hammond	Lake
Pancost, Vernon K.	Elkhart	Elkhart
Pangan, Jesus F.	Valparaiso	Porter
Pangan, Zanita A.	Valparaiso	Porter
Panos, Constantine G.	Bluffton	Wells
Pantzer, John G., Jr.	Indianapolis	Marion
Pappas, Eddie T.	Gary	Lake
Paras, Jose L.	Batesville	Ripley
Pareja, Frank S.	Greenfield	Hancock
Paris, Durward W.	Kokomo	Howard
Paris, John M.	New Albany	Floyd
Park, Byron J.	Richmond	Wayne-Union
Parke, William C.	Warsaw	Kosciusko
Parker, Carey B. (S)	Fort Wayne	Allen
Parker, Carl B.	Wingate	Montgomery
Parker, E. Camille	Logansport	Cass
Parker, Francis W., Jr.	Logansport	Cass
Parker, George F., Jr.	Indianapolis	Marion
Parker, Harry C. (S)	Hobart	Lake
Parker, John C.	Goodland	Newton
Parker, John F.	Indianapolis	Marion
Parker, Portia	Indianapolis	Marion
Parks, George O.	Hartford City	Delaware-Blackford
Parks, Herbert E.	Indianapolis	Marion
Parmenter, Harry B.	Vincennes	Knox
Parr, Robert L.	Indianapolis	Marion
Parratt, Louis W.	Gary	Lake
Parrish, Richard K.	Decatur	Adams
Parrot, Donald J.	Fort Wayne	Allen
Parshall, Dale B.	Elkhart	Elkhart
Parsons, Robert L.	South Bend	St. Joseph
Pascuzzi, Chris A.	South Bend	St. Joseph
Pastor, Julius W.	Evansville	Vanderburgh
Patterson, Jack W.	Fort Wayne	Allen
Patterson, William K.	Anderson	Madison
Pattison, John D.	Marion	Grant
Paul, Eudell G.	Munster	Lake
Paul, Leonard G.	Michigan City	La Porte
Paulissen, George T.	Indianapolis	Marion
Pauszek, Robert B.	Indianapolis	Marion
Pauszek, Thomas B. (S)	South Bend	St. Joseph
Pavlick, Theodore J.	Evansville	Vanderburgh
Payne, Arthur C. (S)	East Chicago	Lake
Paynter, Morris B.	Southport	Marion
Paz, Juan A.	Indianapolis	Marion
Paz, Luis	Shelbyville	Shelby
Peacock, Norman F.	Crawfordsville	Montgomery
Peacock, Robert C.	Muncie	Delaware-Blackford
Pearce, Roy V.	Terre Haute	Vigo
Pearcy, Marcene	Marion	Grant
Peare, Reeve B.	Huntington	Huntington
Pearson, Huey L.	Fort Wayne	Allen
Pearson, John S.	Indianapolis	Marion
Pearson, Lyman R.	Clearwater, Fla.	Marion
Pearson, William E.	Wabash	Wabash
Peck, Edward A.	Hammond	Lake
Peck, Franklin B., Jr.	Indianapolis	Marion
Peck, Franklin B., Sr.	Indianapolis	Marion
Peck, James F.	Princeton	Gibson
Peiffer, Geraldine M.	Hammond	Lake
Peirce, James D.	Indianapolis	Marion
Pemberton, Jack J.	Evansville	Vanderburgh
Penn, Robert A.	East Gary	Lake
Perdomo, Octavio J.	New Albany	Floyd
Perez, Helio C.	Indianapolis	Marion
Perkins, Powell L.	Kokomo	Howard
Perkins, Thornton D.	Lebanon	Boone
Perrin, Kermit F.	Fort Wayne	Allen
Perry, Frederic G.	Fort Wayne	Allen
Person, Theodore C.	Veedersburg	Fountain-Warren
Peters, Elmer E.	Brookville	Fayette-Franklin
Peterson, Deward D.	Terre Haute	Vigo
Peterson, Joel A. (S)	Monticello	Tippecanoe
Peterson, Ronald L.	Plymouth	Marshall
Petitjean, Harold G.	Haubstadt	Gibson
Petranoff, Theodore V. (S)	Indianapolis	Marion
Petrass, Andrew (S)	South Bend	St. Joseph
Petrich, Peter R.	Attica	Fountain-Warren
Petry, T. Neal	Delphi	Carroll
Pettis, Arthur G.	Gary	Lake
Petty, Charles S.	Indianapolis	Marion
Petway, Allen P.	Madison	Jefferson-Switzerland
Peyton, Frank W.	Lafayette	Tippecanoe
Pfaff, Dudley A. (S)	Indianapolis	Marion
Pfeifer, James M.	Lawrenceburg	Dearborn-Ohio
Pfuetze, Max E.	Logansport	Cass
Phares, Robert W.	Kokomo	Howard
Phelps, Stephen R.	South Bend	St. Joseph
Philbert, Richard N.	Muncie	Delaware-Blackford
Philbrook, Seth S.	La Porte	La Porte
Phillips, David L.	Indianapolis	Marion
Phillips, Donald M.	Gary	Lake
Phillips, John F.	Bluffton	Wells
Phillips, John H.	Michigan City	La Porte
Phipps, Elwood B.	Logansport	Cass
Phipps, Leland K. (S)	Union City	Randolph
Pickerill, James M.	Lafayette	Tippecanoe
Pickett, Merle E.	Fort Wayne	Allen

Name	City	County
Pickett, Robert D.	Indianapolis	Marion
Pierce, Emmett C., Jr.	Greenfield	Marion
Pierce, Gene S.	New Albany	Floyd
Pierce, Raymond O.	Indianapolis	Marion
Pierce, William J.	Bruceville	Daviess-Martin
Pierson, Howard	Gary	Lake
Pierson, Pearl H.	Silver Lake	Kosciusko
Pierson, Robert H.	Crawfordsville	Montgomery
Pierson, Thomas A.	New Palestine	Hancock
Pietz, David G.	Bluffton	Wells
Pike, Warren H.	Hobart	Lake
Pilcher, Jack E.	Indianapolis	Marion
Pile, Stafford W., Jr.	Indianapolis	Marion
Pilecki, Peter J.	Michigan City	La Porte
Pilot, Jean	Hammond	Lake
Pippenger, Joseph I.	Muncie	Delaware-Blackford
Pippenger, Wayne G.	Muncie	Delaware-Blackford
Pirkle, Hubert B. (S)	Rockville	Parke-Vermillion
Pitkin, McKendree C. (S)	Martinsville	Morgan
Pittman, John N.	Indianapolis	Marion
Pitts, Neal C.	APO, San Francisco, Calif.	Wells
Pizzo, Anthony	Bloomington	Owen-Monroe
Plain, George	South Bend	St. Joseph
Plain, George Leroy	South Bend	St. Joseph
Plank, Charles R.	Michigan City	La Porte
Plasterer, Edward D.	Richmond	Wayne-Union
Platis, James M.	Gary	Lake
Pletcher, William D.	Elkhart	Elkhart
Ploetner, Edward J.	Jasper	Dubois
Ploughe, Ralph R.	Elwood	Madison
Poehler, Fred C.	La Fontaine	Wabash
Polhemus, Warren C.	Anderson	Madison
Polite, Nicholas L.	Hammond	Lake
Polydefkis, Dimitri	Munster	Lake
Poncher, John R.	Valparaiso	Porter
Poutius, Edwin E.	Indianapolis	Marion
Poolitsan, George C.	Bloomington	Owen-Monroe
Popp, Milton F.	Fort Wayne	Allen
Popplewell, Arvine G.	Indianapolis	Marion
Poracky, Bernard F.	Gary	Lake
Porro, Francis W.	Evansville	Vanderburgh
Porter, Carl M.	Jasonville	Greene
Porter, Edward A. (S)	Westport	Decatur
Porter, George S.	Richmond	Wayne-Union
Porter, Jack	Lebanon	Boone
Porter, Robert A.	Indianapolis	Marion
Portney, Fred R.	Munster	Lake
Powell, J. Paxton	Marion	Grant
Powell, M. Jack	Fort Wayne	Allen
Powell, Richard C.	Indianapolis	Marion
Powell, Tom D.	Chandler, Ariz.	Marion
Prather, Philip E.	Kokomo	Howard
Pratt, Ralph M., Jr.	Madison	Jefferson-Switzerland
Predd, Adolph C.	La Porte	La Porte
Premuda, Franklin F.	Hammond	Lake
Prentiss, Nelson H.	Oteen, N. C.	Allen
Present, Julian D.	Evansville	Vanderburgh
Pribble, Robert H.	Indianapolis	Marion
Price, Ambrose M.	Anderson	Madison
Price, Douglas W.	Nappanee	Elkhart
Price, Francis W.	Indianapolis	Marion
Price, James O.	Indianapolis	Marion
Price, Robert W.	Elkhart	Elkhart
Price, Shirley G.	Evansville	Vanderburgh
Priddy, Marvin E.	Fort Wayne	Allen
Priebe, Fred H.	Indianapolis	Montgomery
Proudfit, Charles H.	South Bend	St. Joseph
Province, William D.	Franklin	Johnson
Pruitt, Jacob E.	Gary	Lake
Pryor, Richard C.	Indianapolis	Marion
Pugh, Willis L.	Evansville	Vanderburgh
Pulskamp, Bertrand H.	Wolcottville	Noble
Purcell, Richard J.	Griffith	Lake
Puterbaugh, Karl E. (S)	Albany	Delaware-Blackford
Pyle, Harold D.	South Bend	St. Joseph

Q

Quakenbush, John	Kokomo	Howard
Quiambao, Hector S.	Ridgeville	Randolph
Quick, William J.	Muncie	Delaware-Blackford
Quigley, Joseph B.	Indianapolis	Marion
Quilty, Thomas J.	Goshen	Elkhart
Quizon, Ceferino S.	Long Beach, Calif.	Marion

R

Rabasa, Rafael	Mishawaka	St. Joseph
Rabb, Aaron	Louisville, Ky.	Marion
Rabb, Frank M.	Indianapolis	Marion
Raber, Robert M.	Indianapolis	Marion
Radcliff, Forest F., Jr.	Evansville	Vanderburgh
Rader, George S.	Indianapolis	Marion
Radigan, Leo R.	Gary	Lake
Radpour, Shokri	Kokomo	Howard
Rafalski, Thomas A.	Indianapolis	Marion
Ragan, William D.	Indianapolis	Marion
Ralston, Marc A.	Lafayette	Tippecanoe
Ramage, Walter F.	Beech Grove	Marion
Ramey, John W. (S)	Kokomo	Howard
Ramirez, Efren A.	Indianapolis	Marion
Ramker, Daniel T.	Hammond	Lake
Ramsdell, Glen A.	Richmond	Wayne-Union
Ramsey, Frank B.	Indianapolis	Marion
Ramsey, George F.	Lafayette	Tippecanoe
Ramsey, Hugh S.	Bloomington	Owen-Monroe
Ranck, Benjamin A.	Columbus	Bartholomew-Brown
Randall, Thomas A.	Lafayette	Tippecanoe
Raney, Ben B.	Linton	Greene
Rang, A. A. (S)	Washington	Daviess-Martin
Rang, Robert H.	Washington	Daviess-Martin
Rank, William B.	Fort Wayne	Allen
Ransburg, Robert C.	Fort Wayne	Allen
Rapp, George F.	Indianapolis	Marion
Rasch, George C., Jr.	Munster	Lake
Rasmussen, Ruth F.	South Bend	St. Joseph
Ratcliff, Frank W.	Lafayette	Tippecanoe
Ratcliffe, Albert W.	Evansville	Vanderburgh
Ratts, Larry D.	Bloomington	Owen-Monroe
Rau, Charles A.	Columbus	Bartholomew-Brown
Rauh, Robert A.	Wabash	Wabash
Rausch, Norman W.	Angola	Steuben
Rawlins, Carolyn M.	Munster	Lake
Rawls, George H.	Indianapolis	Marion
Ray, Carl S.	Warren	Huntington
Raymundo, Vivencio F.	Attica	Fountain-Warren
Rea, Ralph L.	Greenfield	Hancock
Rea, Thomas J.	Edwardsburg, Mich.	St. Joseph
Read, John E.	Chesterton	Porter
Receveur, Robert	New Albany	Floyd
Records, Arthur W. (S)	Franklin	Johnson
Records, John M.	Franklin	Johnson
Reed, Donald W.	New Castle	Henry
Reed, Edsel S.	Jeffersonville	Clark
Reed, John J.	Hobart	Lake
Reed, John D.	Fort Wayne	Allen
Reed, Nelle C. (S)	Michigan City	La Porte
Reed, Philip B.	Indianapolis	Marion
Reed, Robert C.	Terre Haute	Vigo

Name	City	County
Reed, Robert F.	Mishawaka	St. Joseph
Reed, Robert G., Jr.	South Bend	Marshall
Reed, Roger R.	Anderson	Madison
Reed, Ronald R.	Whiting	Lake
Reed, Thomas E.	Indianapolis	Marion
Reed, William C. (S)	Nashville	Owen-Monroe
Reeder, Henry H. (S)	Jeffersonville	Clark
Rees, Russel C.	Indianapolis	Marion
Reese, Jay S.	Milton, Fla.	Morgan
Reeve, Bryce L.	Whiting	Lake
Regan, George L.	Sellersburg	Clark
Reich, Clarence E.	Evansville	Vanderburgh
Reid, Charles A.	Indianapolis	Marion
Reid, Donald B.	Columbia City	Whitley
Reid, James D.	Marion	Grant
Reid, Robert M.	Columbus	Bartholomew-Brown
Reid, Robert W. (S)	Union City	Randolph
Reitman, Paul H.	East Chicago	Lake
Reitz, Lawrence A.	Indianapolis	Marion
Remich, Antone C.	Hammond	Lake
Renbarger, Lester L.	Marion	Grant
Rendel, Donald T.	Munster	Lake
Rendel, Harold E.	Peru	Miami
Reno, Edward C.	Plymouth	Marshall
Repay, Walter A.	Munster	Lake
Reppert, Roland L.	Decatur	Adams
Ress, Gene E.	Tell City	Perry
Reszel, Paul A.	Fort Wayne	Allen
Reuter, John W.	Bedford	Lawrence
Reyes, Diego C.	Peru	Miami
Reynolds, James S.	Gary	Lake
Reynolds, Paul	Franklin	Johnson
Reynolds, Ralph E.	Middletown	Madison
Reynolds, Richard J.	Terre Haute	Vigo
Rhamy, Arthur P.	Marion	Grant
Rhamy, Donald E.	Marion	Grant
Rhea, Kenneth E.	Indianapolis	Marion
Rhee, Sang K.	Fort Wayne	Allen
Rheinheimer, Floyd L.	Milford	Elkhart
Rhind, Alexander W.	Hammond	Lake
Rhodes, Alfred K.	Lawrenceburg	Dearborn-Ohio
Rhodes, Theodore D.	Sarasota, Fla.	Marion
Rhorer, John G.	Marion	Grant
Rhynearson, Hal R.	Fortville	Hancock
Ricchetti, Warren F.	West Lafayette	Tippecanoe
Rice, Frederic A., Jr.	Indianapolis	Marion
Rice, Katherine K.	South Bend	St. Joseph
Rice, Raymond D.	Indianapolis	Marion
Rice, Raymond M.	Indianapolis	Marion
Rice, Ronald B.	Indianapolis	Marion
Rich, Norval S.	Decatur	Adams
Rich, Richard B.	Indianapolis	Marion
Richard, Norman F.	Shelbyville	Shelby
Richards, Alan D.	Fort Wayne	Allen
Richards, Dean	South Bend	St. Joseph
Richards, Edgar E.	Russellville	Montgomery
Richardson, Joseph D.	Rochester	Fulton
Richardson, Joseph H.	Fort Wayne	Allen
Richart, James V.	Terre Haute	Vigo
Richmond, Harold W.	Columbus	Bartholomew-Brown
Richter, Arthur B.	Indianapolis	Marion
Richter, John C.	La Porte	La Porte
Richter, Samuel	Gary	Lake
Ricketts, Joseph W. (S).	Ormond Beach, Fla.	Marion
Ridgway, Alton H.	Lapel	Madison
Ridolfo, Anthony S.	Indianapolis	Marion
Rieger, I. Taylor	Bloomington	Owen-Monroe
Rietman, H. Jerome	Evansville	Vanderburgh
Rifner, Eugene S.	Van Buren	Grant
Rigaux, Armand J.	South Bend	St. Joseph
Rigg, John F. (S)	Miami Shores, Fla.	Marion
Riggs, Floyd C. (S)	Terre Haute	Vigo
Riggs, Wendell A.	Lafayette	Tippecanoe
Riley, Henry S.	Madison	Jefferson-Switzerland
Riley, Paul D.	Beech Grove	Marion
Rimel, James F.	Plymouth	Marshall
Rinehart, James J.	Kokomo	Howard
Riner, Jack K.	Indianapolis	Marion
Ringer, William A.	Williamsport	Fountain-Warren
Rinne, John I. (S)	Lapel	Madison
Riordan, John F.	Gary	Lake
Rissing, Walter J.	Fort Wayne	Allen
Ritchie, William D.	Evansville	Vanderburgh
Ritchey, James O.	Indianapolis	Marion
Ritteman, George W.	Franklin	Johnson
Ritter, Wayne L.	Indianapolis	Marion
Rittmeyer, Jack L.	Muncie	Delaware-Blackford
Ritz, Albert S.	Evansville	Vanderburgh
Rivers, Glynn A.	Muncie	Delaware-Blackford
Rivers, Thomas A.	Rochester, Minn.	Delaware-Blackford
Robb, John A.	Indianapolis	Marion
Roberts, Billy J.	South Bend	St. Joseph
Roberts, Thomas K.	Michigan City	La Porte
Robertson, Addis N. (S)	New Albany	Floyd
Robertson, James S.	Plymouth	Marshall
Robertson, Ray B. (S)	Indianapolis	Marion
Robertson, William C.	Chesterton	Porter
Robertson, William S.	Spiceland	Henry
Robinson, Earle U., Jr.	Indianapolis	Marion
Robinson, Frank C. (S)	Newport Beach, Calif.	Marion
Robinson, Nan	New Albany	Floyd
Robinson, Robert D.	Bloomington	Owen-Monroe
Robinson, Walter K.	Gary	Lake
Roby, Alma L.	Jeffersonville	Clark
Rochlin, Isidore	Indianapolis	Marion
Rockey, Noah A. (S)	Ft. Lauderdale, Fla.	Allen
Roesch, Ryland P.	Indianapolis	Marion
Roeske, Nancy A.	Indianapolis	Marion
Rogers, Donald L.	Indianapolis	Marion
Rogers, Evered E.	Auburn	De Kalb
Rogers, Otto F., Jr.	Bloomington	Owen-Monroe
Rogers, R. Shirrell	Terre Haute	Vigo
Rogers, Thomas P.	La Jolla, Calif.	Marion
Roggenkamp, Milton W.	W. Lafayette	Tippecanoe
Rohn, Robert J.	Indianapolis	Marion
Rohrer, Bryce B.	Walkerton	St. Joseph
Rohrer, James R.	Elnora	Daviess-Martin
Roig, Jose H.	Gary	Lake
Roller, Charles W. (S)	Indianapolis	Marion
Roller, Mac C.	Franklin	Johnson
Rollins, Thomas K.	Bloomington	Owen-Monroe
Romberger, Floyd T., Jr.	Indianapolis	Marion
Romero, Plinio	East Chicago	Lake
Rommel, Clarence H.	W. Lafayette	Tippecanoe
Roof, Roger S.	Greencastle	Putnam
Roose, Lisle W.	Nappanee	Elkhart
Ropp, Harold E.	New Harmony	Posey
Rosato, Edward J.	Evansville	Vanderburgh
Rosenak, Bernard D.	Indianapolis	Marion
Rosenbaum, Irving, Jr.	Indianapolis	Marion
Rosenbaum, Lloyd E.	Anderson	Madison
Rosenberg, Gabriel J.	Indianapolis	Marion
Rosenblatt, Bernard B.	Evansville	Vanderburgh
Rosenbloom, Philip J.	Gary	Lake
Rosenheimer, George M.	South Bend	St. Joseph
Rosenthal, Carl	Hammond	Lake
Rosenwasser, Jacob	Mishawaka	St. Joseph
Roser, Arthur J.	Fort Wayne	Allen
Rosero, M. George	Kewanna	Marshall

Name	City	County
Rosevear, Henry J.	Munster	Lake
Ross, Alexander T.	Indianapolis	Marion
Ross, Ben R.	Bloomington	Owen-Monroe
Ross, David E., Jr.	Gary	Lake
Ross, Glenn E.	Washington	Daviess-Martin
Ross, Guy E.	Anderson	Madison
Ross, James B.	Bloomington	Owen-Monroe
Rossiter, Dudley L. (S)	Fort Wayne	Allen
Roth, Bertram S.	Indianapolis	Marion
Roth, James R.	Columbia City	Whitley
Roth, Leo	Gary	Lake
Roth, Melvin I.	Gary	Lake
Rothberg, Maurice	Fort Wayne	Allen
Rothrock, Philip W.	Lafayette	Tippecanoe
Rotman, Harry G.	Jasonville	Greene
Rotman, Sam I.	Jasonville	Greene
Rouen, Robert L.	Elkhart	Elkhart
Rourke, Robert F.	Terre Haute	Vigo
Rousseau, John W.	Fort Wayne	Allen
Row, D. Hamilton	Indianapolis	Marion
Row, George S.	Osgood	Ripley
Rowe, George A.	Indianapolis	Marion
Rowe, Howard H.	Rochester	Fulton
Royster, George M. (S)	Evansville	Vanderburgh
Royster, Robert A.	Evansville	Vanderburgh
Rubens, Eli	South Bend	St. Joseph
Rubin, Milton M.	Terre Haute	Vigo
Rubin, Simon S.	Gary	Lake
Rubright, Robert L.	Munster	Lake
Rucker, Warren R.	Madison	Jefferson-Switzerland
Ruddell, Karl R. (S)	Indianapolis	Marion
Ruddell, Keith R.	Indianapolis	Marion
Rudesill, Cecil L. (S)	Indianapolis	Marion
Rudesill, Robert L.	Indianapolis	Marion
Rudicel, Max	Kokomo	Howard
Rudolph, Carl J.	South Bend	St. Joseph
Rudolph, Kenneth J.	Evansville	Vanderburgh
Rudolph, Rosser A.	Muncie	Jay
Rudolph, Stephen J., Jr.	Grand Forks AFB, N. Dakota	Marion
Rudser, Donald H.	Whiting	Lake
Rudy, Donald B.	Rhodesia, S. Africa	Wells
Ruff, Jerard G.	Bloomington	Owen-Monroe
Runge, Paul W.	Richmond	Wayne-Union
Ruoff, William F.	New Albany	Floyd
Rupe, Lloyd O.	Elkhart	Elkhart
Rupel, Dennis F.	Elkhart	Elkhart
Rusche, Henry J.	Evansville	Vanderburgh
Rusche, Thomas J.	Evansville	Vanderburgh
Ruschli, Edward B. (S)	Lafayette	Tippecanoe
Rusher, Merrill W.	Bluffton	Wells
Rushmore, Charles H.	Indianapolis	Marion
Rusk, Hubert M.	Wallace	Fountain-Warren
Russell, Henry T.	W. Lafayette	Tippecanoe
Russell, John R.	Indianapolis	Marion
Russell, Richard H.	Evansville	Vanderburgh
Russo, Andrew E.	Crown Point	Lake
Rust, Byron K.	Big Pine Key, Fla.	Marion
Rust, Roland B.	Indianapolis	Marion
Ruth, Martin L.	Indianapolis	Marion
Rutherford, Charles E.	Lafayette	Tippecanoe
Ryan, C. David	Columbus	Bartholomew-Brown
Ryan, Glen V.	Indianapolis	Marion
Ryan, Hubert J.	Gary	Lake
Ryan, William J.	Columbus	Bartholomew-Brown

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Name	City	County
Saavedra, Bernardo	Gary	Lake
Sablay, Nonito M.	Gary	Lake
Sacks, Leonard Z.	Valparaiso	Porter
Safirstein, Moises	Fort Wayne	Allen
Sage, Charles V., Jr.	Richmond	Wayne-Union
Sage, Russell A., Jr.	Indianapolis	Marion
Sage, Russell A. (S)	Indianapolis	Marion
Sahlmann, Hans (S)	Fort Wayne	Allen
Saint, William K.	New Castle	Henry
Sala, Joseph J.	Gary	Lake
Sala, Walter R.	Gary	Lake
Salb, John P.	Jasper	Dubois
Salb, Leo A. (S)	Jasper	Dubois
Salon, Harry W.	Fort Wayne	Allen
Salon, Joel W.	Fort Wayne	Allen
Salon, Nathan L. (S)	Fort Wayne	Allen
Salsburg, Herbert E.	Hamlet	La Porte
Sanchez, Jose D.	La Porte	La Porte
Sanders, Bertram W.	Connersville	Fayette-Franklin
Sanders, Fred	Indianapolis	Marion
Sanders, Harry M.	Indianapolis	Marion
Sanders, Jesse A. (S)	Auburn	De Kalb
Sanderson, Robert B.	South Bend	St. Joseph
Sandlin, Donald L.	Columbus	Bartholomew-Brown
Sandock, Louis F.	South Bend	St. Joseph
Sandoz, Harry H.	South Bend	St. Joseph
Santare, Vincent J.	Munster	Lake
Santiago, Iluminada	Highland	Lake
Saperstein, Morris	Indianapolis	Marion
Sappenfield, Ralph S.	Indianapolis	Marion
Sarver, Francis E.	Fort Wayne	Allen
Saucelo, Bart M.	South Bend	St. Joseph
Sayers, Frank E. (S)	Terre Haute	Vigo
Scales, Alfred B.	Huntingburg	Dubois
Scales, Allen D.	Huntingburg	Dubois
Scamahorn, Malcolm O.	Pittsboro	Hendricks
Scea, Wallace A.	Elwood	Madison
Schaab, Eric	Fort Wayne	Allen
Schaaf, Alvin D.	Jamestown	Boone
Schaefer, Joseph C.	Shreveport, La.	Wells
Schafer, William C.	Washington	Daviess-Martin
Schaffer, Edward V.	Indianapolis	Marion
Schaffer, James J.	Bloomington	Owen-Monroe
Schantz, Richard	Remington	Jasper
Schaphorst, Richard A.	Mishawaka	St. Joseph
Scharbrough, Wm. D.	Ewing	Jackson-Jennings
Schauwecker, Cleon M.	Greencastle	Putnam
Schechter, John S.	Indianapolis	Marion
Scheer, Alexander L.	Elkhart	Elkhart
Scheeres, Jacob W.	Lafayette	Tippecanoe
Scheeringa, Ronald H.	Fort Wayne	Allen
Scheier, Emil W. (S)	Indianapolis	Marion
Scheimann, Lois	Valparaiso	Porter
Schell, H. Richard	Bloomington	Owen-Monroe
Schenck, Ralph E.	Portland	Jay
Scherb, Burton E.	Terre Haute	Vigo
Scherschel, John P.	Bedford	Lawrence
Scherschel, Thomas R.	Kokomo	Howard
Scheurich, Virgil	Oxford	Benton
Schiffer-Grimes, Eva M.	Indianapolis	Marion
Schiller, Herbert A.	South Bend	St. Joseph
Schilling, Richard J.	Bloomington	Owen-Monroe
Schimmelpfennig, Robert W.	Evansville	Vanderburgh
Schirmer, Robert H.	Evansville	Vanderburgh
Schlademan, Karl R.	Fort Wayne	Allen
Schlaegel, Theo. F., Jr.	Indianapolis	Marion
Schlegel, Donald M.	Indianapolis	Marion
Schleinkofer, Robert M.	Fort Wayne	Allen
Schlesinger, Daniel J.	Munster	Lake
Schloss, Robert P.	Fort Wayne	Allen
Schlossberg, Victor E., Jr.	Mishawaka	St. Joseph
Schlosser, Herbert C. (S)	Elkhart	Elkhart

Name	City	County
Schmalhausen, Ansel W.	Indianapolis	Marion
Schmidt, Eugene E.	Fort Wayne	Allen
Schmidt, Loren F.	Indianapolis	Marion
Schmidt, Robert B.	Muncie	Delaware-Blackford
Schmiedicke, Paul H.	W. Lafayette	Tippecanoe
Schmitt, Richard K.	Columbus	Bartholomew-Brown
Schmitt, Robert J.	Michigan City	La Porte
Schmitt, Robert W.	Richmond	Wayne-Union
Schmoll, Robert J.	Fort Wayne	Allen
Schmoyer, Maurice R.	Indianapolis	Marion
Schneider, Carl J.	Indianapolis	Marion
Schneider, Charles P.	Evansville	Vanderburgh
Schneider, Kenneth D.	Columbus	Bartholomew-Brown
Schneider, Louis A.	Fort Wayne	Allen
Schneider, Paul A.	Indianapolis	Marion
Schnute, Richard B.	Indianapolis	Marion
Schoen, Frederic L.	Fort Wayne	Allen
Schoenhals, Charles E.	Fort Wayne	Allen
Schoolfield, William E.	Orleans	Orange
Schoonveld, Arthur	Brook	Newton
Schreiner, John E.	Bremen	Marshall
Schrepferman, Wayne	Hamilton	Steuben
Schriefer, Victor V.	Evansville	Vanderburgh
Schroeder, Henry R., Jr.	Washington	Daviess-Martin
Schroeder, James E.	Indianapolis	Marion
Schubert, Jerome C.	Fort Wayne	Allen
Schuchman, Gabriel	Indianapolis	Marion
Schulhof, Maurice G.	Muncie	Delaware-Blackford
Schultheis, Richard L.	Bloomington	Owen-Monroe
Schulz, Kurt J.	Gary	Lake
Schumacher, Richard R.	Indianapolis	Marion
Schumaker, Robert A.	Terre Haute	Vigo
Schuman, Edith B.	Bloomington	Owen-Monroe
Schuster, Dwight W.	Indianapolis	Marion
Schwartz, Frederick C.	Kokomo	Howard
Schwartz, Jack	Munster	Lake
Schwartz, Mary M.	Hammond	Lake
Schwarz, Anton	Zionsville	Marion
Scofield, John B.	Indianapolis	Marion
Scott, Frank M.	South Bend	St. Joseph
Scott, George E.	Indianapolis	Marion
Scott, H. Vaughn	Fort Wayne	Allen
Scott, Irvin H.	Sullivan	Sullivan
Scott, I. Winfield	Indianapolis	Marion
Scott, John R.	Indianapolis	Marion
Scott, John S.	La Porte	La Porte
Scott, Robert O.	Charlottesville	Hancock
Scott, Robert P.	Indianapolis	Marion
Scott, Samuel L.	Indianapolis	Marion
Scott, V. Brown	Shelbyville	Shelby
Scudder, Arthur N.	Brownsburg	Hendricks
Scudder, Gary E.	Lawrenceburg	Dearborn-Ohio
Scudder, James P.	Fort Wayne	Allen
Scully, John T.	Gary	Lake
Scully, William E.	Terre Haute	Vigo
Seagle, William C.	Bloomington	Owen-Monroe
Seal, Perry F.	Brookville	Fayette-Franklin
Seaman, Charles F.	Indianapolis	Marion
Searight, Howard R.	Muncie	Delaware-Blackford
Searight, John L.	Indianapolis	Marion
Sears, Don A.	Odon	Daviess-Martin
Seat, Marshall H.	Washington	Daviess-Martin
Sedam, Herbert L.	Indianapolis	Marion
Seese, Robert M.	Delphi	Carroll
Seibel, Robert M.	Nashville	Bartholomew-Brown
Seipel, Stanley	Lanesville	Harrison-Crawford

Name	City	County
Sekulich, Milo	Kokomo	Howard
Sellers, Francis M.	Mishawaka	St. Joseph
Sellmer, George W.	Indianapolis	Marion
Senese, Thomas J.	Gary	Lake
Sennett, Cecil M. (S)	Westville	La Porte
Sennett, William K.	Macy	Miami
Senseny, Eugene F.	Fort Wayne	Allen
Serna, Carlos A.	Munster	Lake
Serrano, Jose F.	Munster	Lake
Seward, George W.	North Manchester	Wabash
Sexson, Hiram T.	Indianapolis	Marion
Seybert, Thomas C.	Indianapolis	Marion
Seyler, Anna G. (S)	La Verne, Calif.	Lake
Shafer, Marion R.	Indianapolis	Marion
Shafer, Richard H.	Alexandria	Madison
Shaffer, Kenneth L.	Vincennes	Knox
Shaffer, William R.	Greensburg	Decatur
Shahbahrami, Farrokh	Bedford	Lawrence
Shallenberger, Henry R.	Modoc	Randolph
Shanafelt, Donald K.	Indianapolis	Marion
Shanklin, Jack L.	Vincennes	Knox
Shanklin, Vernon A. (S)	Terre Haute	Vigo
Shanks, Ray W.	Noblesville	Hamilton
Shannon, Wesley E.	Crawfordsville	Montgomery
Shapiro, Burton J.	Indianapolis	Marion
Shapiro, Joseph	Hammond	Lake
Shapiro, Seymour W.	Gary	Lake
Sharp, Merle C.	South Bend	St. Joseph
Sharp, William L.	Anderson	Madison
Shattuck, John C.	Brazil	Clay
Shaw, Glenn R.	Bluffton	Wells
Shaw, Houston W.	Jeffersonville	Clark
Shaw, James E.	Fort Wayne	Allen
Sheehan, E. Gregg	Evansville	Vanderburgh
Sheehan, Francis G.	Indianapolis	Marion
Sheek, Kenneth I.	Greenwood	Johnson
Sheets, Charles E.	Manilla	Rush
Sheldon, Suel A.	Anderson	Madison
Sheller, Tom G.	Logansport	Cass
Shelley, Edward S.	South Bend	St. Joseph
Shelley, Richard J.	Indianapolis	Marion
Shelton, Clyde F.	New Albany	Floyd
Shepard, Fred F.	College Corner, Ohio	Wayne-Union
Sherer, Kenneth E.	Richmond	Wayne-Union
Sherster, Harry	Indianapolis	Marion
Sherwood, Clarence E.	Madison, So. Dakota	Allen
Sherwood, J. Vincent	Largo, Fla.	Allen
Shevick, Alexander	Gary	Lake
Shields, Duncan M.	Chesterton	Porter
Shields, Jack E.	Brownstown	Jackson-Jennings
Shields, Tom S.	Richmond	Wayne-Union
Shina, Hassi	Charlestown	Clark
Shinabery, Lawerence	Fort Wayne	Allen
Shipley, Edward	Indianapolis	Marion
Shively, John L.	Lafayette	Tippecanoe
Shively, Wyant J.	Evansville	Vanderburgh
Shoemaker, Richard L.	Gas City	Grant
Sholty, William M.	Lafayette	Tippecanoe
Short, John A.	Richmond	Wayne-Union
Short, John T. (S)	Fort Wayne	Allen
Showalter, John R.	Terre Haute	Vigo
Shriber, William H.	South Bend	St. Joseph
Shriner, Richard L.	South Bend	St. Joseph
Shrock, Ethan E.	Amboy	Grant
Shroyer, Herbert L.	Dunkirk	Jay
Shuck, William A.	Madison	Jefferson-Switzerland
Shuck, William A., Jr.	Marion	Grant
Shugart, Robert R.	Fort Wayne	Allen
Shullenberger, Wendell A.	Indianapolis	Marion
Shulruff, Harry I.	East Chicago	Lake
Shultz, Clifford	Butler	De Kalb

Name	City	County
Shumacker, Harris B., Jr.	Indianapolis	Marion
Sibbitt, Joseph W.	Bloomington	Owen-Monroe
Sicks, Okla W. (S)	Indianapolis	Marion
Sidel, Alan W.	Columbus, Miss.	Marion
Sidell, James P.	New Haven	Allen
Siderys, Harry	Indianapolis	Marion
Siebe, Jack C.	Indianapolis	Marion
Siebenmorgen, Paul	Terre Haute	Vigo
Siegel, Lyle P.	Evansville	Vanderburgh
Siekierski, Joseph M.	Griffith	Lake
Siersdorfer, Theodore N. (S)	Indianapolis	Marion
Sigmond, Harvey W.	Indianapolis	Marion
Sigmund, William B.	Columbus	Bartholomew-Brown
Silbert, David B.	Shelbyville	Shelby
Siler, George B.	Whiting	Lake
Silver, Richard A.	Indianapolis	Marion
Silverman, Norman M.	Terre Haute	Vigo
Silvero, Hubert L.	Churubusco	Allen
Silvers, Michael	N. Manchester	Wabash
Silvian, Harry A.	Whiting	Lake
Simmons, Frederick H.	Marion	Grant
Simmons, James E.	Indianapolis	Marion
Simms, J. Leon	Indianapolis	Marion
Sims, J. Lawrence	Indianapolis	Marion
Sims, Larry W.	Evansville	Vanderburgh
Singco, Bienvenido	Greenfield	Hancock
Singer, Elmer C. (S)	Fort Wayne	Allen
Sinn, Charles M.	Evansville	Vanderburgh
Sirlin, Edward M.	Fort Wayne	Allen
Sirugo, Aldo C.	La Porte	La Porte
Sison, Rose D.	Terre Haute	Vigo
Sison, Vicente G.	Terre Haute	Vigo
Sisson, Norvel D.	South Bend	St. Joseph
Sixbey, Maurice D.	Denver	Miami
Skeen, Earl D. (S)	South Bend	Lake
Skillern, Scott D.	South Bend	St. Joseph
Skomp, Claud E.	Marion	Grant
Skrentny, Thomas T.	Spencer	Owen-Monroe
Slama, George F.	Gary	Lake
Slama, John T.	Gary	Lake
Slaughter, Howard C.	Evansville	Vanderburgh
Slaughter, John C., Jr.	Evansville	Vanderburgh
Slaughter, Owen L.	Evansville	Vanderburgh
Slichenmyer, Jack E.	Indianapolis	Marion
Slick, Crystal R.	Winchester	Randolph
Sloan, Herbert P.	Jeffersonville	Floyd
Sloan, W. Keith	Madison	Jefferson-Switzerland
Slominski, Harry H. (S)	South Bend	St. Joseph
Slomka, Myron B.	New York, N. Y.	Marion
Slough, O. Thomas	Kendallville	Noble
Sluss, David H. (S)	Indianapolis	Marion
Small, Iver F.	Indianapolis	Marion
Smalley, Raymond	Bloomington	Owen-Monroe
Smith, A. Wilson	Greencastle	Putnam
Smith, Barton T.	Marion	Grant
Smith, C. Curtis	Fort Wayne	Allen
Smith, Charles F.	Kokomo	Howard
Smith, David L. (S)	Indianapolis	Marion
Smith, E. Rogers (S)	Indianapolis	Marion
Smith, Eurett E.	Marion	Grant
Smith, Francis C. (S)	Indianapolis	Marion
Smith, Fred, Jr.	Tell City	Perry
Smith, Gloster J.	Kokomo	Howard
Smith, Gordon L.	Evansville	Vanderburgh
Smith, Herschel S.	Bloomington	Owen-Monroe
Smith, Jerald E.	Munster	Lake
Smith, John A.	LaPorte	LaPorte
Smith, John H.	Greenfield	Hancock
Smith, Lloyd H.	North Manchester	Wabash
Smith, Lowell C.	Lafayette	Tippecanoe
Smith, Mark E.	New Castle	Henry
Smith, Philip L.	Fort Wayne	Allen
Smith, Ralph O.	Vincennes	Knox
Smith, Ray C.	Indianapolis	Marion
Smith, Robert D.	Lowell	Lake
Smith, Roger C.	Fort Wayne	Allen
Smith, Roy Lee (S)	Indianapolis	Marion
Smith, Roy M., Jr.	Evansville	Vanderburgh
Smith, Stephen D.	Knightstown	Rush
Smith, Stephen M.	Pensacola, Fla.	Marion
Smith, Theodore J.	Whiting	Lake
Smitley, Roger P.	Munster	Lake
Smucker, Ernest E.	Goshen	Elkhart
Smyrniotis, Frank	Wabash	Wabash
Snapp, Richard A.	Columbus	Bartholomew-Brown
Sneary, Max E.	Avilla	Noble
Snider, Byron	Escondido, Calif.	Marion
Snider, Roland	Warsaw	Kosciusko
Snively, William D., Jr.	Evansville	Vanderburgh
Snodgrass, Robert E.	Indianapolis	Marion
Snowhite, Arthur B.	Marion	Grant
Snyder, Clarence E.	Indianapolis	Marion
Snyder, Jerome A.	Munster	Lake
Snyder, Morris C.	Richmond	Wayne-Union
Snyder, Parker W.	Peru	Miami
Snyderman, Sanford C.	Fort Wayne	Allen
Sobat, William S.	Indianapolis	Marion
Sobol, Z. W.	South Bend	St. Joseph
Sokol, Allen B.	Whiting	Lake
Solis, Roger V.	Hammond	Lake
Solomon, Reuben A. (S)	Indianapolis	Marion
Somers, Emmanuel	Hammond	Lake
Somers, Gerald H.	Fort Wayne	Allen
Somerville, J. W.	Clinton	Parke-Vermillion
Sonne, Irvin H., Jr.	New Albany	Floyd
Soper, Hunter A.	Indianapolis	Marion
Sorg, David A.	Bluffton	Wells
Sorrells, George W.	Bedford	Lawrence
Souder, Bonnell M. (S)	Auburn	De Kalb
Souter, Martha C.	Indianapolis	Marion
South, Herman H.	Richmond	Wayne-Union
Sovine, Joe W.	Indianapolis	Marion
Spahr, Donald E.	Portland	Jay
Spahr, John F., Jr.	Indianapolis	Marion
Spalding, David L.	Mishawaka	St. Joseph
Spalding, Joseph J.	Indianapolis	Marion
Spalding, Wendell L.	Mishawaka	St. Joseph
Spangler, Jesse S.	Kokomo	Howard
Sparks, Alan L.	Indianapolis	Marion
Sparks, Paul W.	Winchester	Randolph
Spears, John K.	Paoli	Orange
Spears, John M.	Indianapolis	Marion
Speas, Robert C.	Terre Haute	Vigo
Speck, Carlson R.	Muncie	Delaware-Blackford
Speckman, Glenn H.	Indianapolis	Marion
Speer, Thomas A.	Gary	Lake
Spellman, Frank W.	Gary	Lake
Spellmeyer, John C.	Richmond	Wayne-Union
Spencer, Beaufort A.	Bloomington	Owen-Monroe
Spencer, Frederic	Vincennes	Knox
Spencer, C. Herbert	Fort Wayne	Allen
Spenner, Raymond W. (S)	South Bend	St. Joseph
Speybroeck, Robert C.	South Bend	St. Joseph
Spindler, Richard G.	Pensacola, Fla.	Vanderburgh
Spindler, Robert D.	Shelbyville	Shelby
Spivack, Mary	Gary	Lake
Spolyar, Louis W.	Indianapolis	Marion
Spray, Page E.	Elkhart	Elkhart
Sprecher, Herman C.	Evansville	Vanderburgh
Sprecher, James J. J.	La Porte	La Porte
Springstun, George H. (S)	Oaktown	Knox

Name	City	County
Springstun, Walter R.	Evansville	Vanderburgh
Spurlock, Fae H.	W. Lafayette	Tippecanoe
Sputh, Carl B., Jr.	Indianapolis	Marion
Sroka, Alexander G.	Hammond	Lake
Sroka, Stanley J.	Highland	Lake
Stadler, Harold E.	Indianapolis	Marion
Stafford, William C.	Plainfield	Hendricks
Stahl, Edward T.	Lafayette	Tippecanoe
Stallings, Hugh A.	Evansville	Vanderburgh
Stallman, Carl F.	Kendallville	Noble
Stalter, Gaylord W.	North Webster	Whitley
Stamper, Joseph H.	Anderson	Madison
Stamper, Robert J.	Anderson	Madison
Stangle, William J.	Bloomington	Owen-Monroe
Stanley, John R.	Muncie	Delaware-Blackford
Stanley, Robert G.	Fort Wayne	Allen
Stansbury, William E.	Indianapolis	Marion
Stark, William A.	Michigan City	La Porte
Starks, William O.	Anderson	Madison
Stasick, Murray	Hammond	Lake
Stauffer, George E.	Mooreland	Henry
Stauffer, Richard C.	Fort Wayne	Allen
Staunton, Henry A.	South Bend	St. Joseph
Stayton, Chester A., Jr.	Indianapolis	Marion
Steckbeck, Robert L.	Bluffton	Wells
Stecy, Peter	Whiting	Lake
Steele, Dick J.	Greencastle	Putnam
Steele, Everett B.	Crown Point	Lake
Steele, Hugh H.	Lafayette	Tippecanoe
Steele, Lowell R.	Bloomington	Owen-Monroe
Steele, Paul W.	Evansville	Vanderburgh
Steen, Lowell H.	Hammond	Lake
Steffen, Julius T.	Wabash	Wabash
Steffy, Ralph M.	Portland	Jay
Steigmeyer, David J.	Fort Wayne	Allen
Stein, Richard H.	Vincennes	Knox
Steinem, Joseph L.	Connersville	Fayette-Franklin
Steinmetz, Edward F.	Indianapolis	Marion
Stephens, Donald E.	Indianapolis	Marion
Stephens, James P.	Crawfordsville	Montgomery
Stephens, Kuhrman H.	Indianapolis	Marion
Stephens, Lowell R.	Covington	Fountain-Warren
Stepleton, John D.	Richmond	Wayne-Union
Stern, Mona K.	Gary	Lake
Stern, Samuel L.	Hammond	Lake
Sterne, John H.	Evansville	Vanderburgh
Steury, Ernest M.	Kenya, Africa	Marion
Steussy, Calvin N.	New Castle	Henry
Stevens, Adam C.	Kendallville	Wells
Stevens, Edwin W.	Munster	Lake
Stevens, Roy J.	Indianapolis	Marion
Stevens, Sydney L.	Indianapolis	Marion
Stevenson, Jerry L.	Anderson	Madison
Steward, Paul W.	Cedar Lake	Lake
Stewart, J. Frank W.	Vincennes	Knox
Stewart, L. Ray	Evansville	Vanderburgh
Stier, Paul L.	Fort Wayne	Allen
Stilwell, William R.	Richmond	Wayne-Union
Stine, Marshall E.	Bremen	Marshall
Stinson, Dean K.	Rochester	Fulton
Stinson, William M.	Anderson	Madison
Stiver, Daniel D.	South Bend	St. Joseph
Stoelting, J. Lewis	Terre Haute	Vigo
Stoelting, Vergil K.	Indianapolis	Marion
Stogdill, William J.	South Bend	St. Joseph
Stogsdill, Willis W.	Franklin	Johnson
Stoller, Leon J.	Dayton, Ohio	Marion
Stolz, Thomas J.	W. Lafayette	Benton
Stone, Alvin T.	Indianapolis	Marion
Stone, David F.	Indianapolis	Marion
Stone, Grant C.	Rochester	Fulton
Stone, Robert C.	Ligonier	Noble
Stoner, Harold E.	Bloomington	Owen-Monroe
Stookey, Richard D.	Hobart	Lake
Stoops, Jean T.	Wabash	Wabash
Storey, D. Edmund	Indianapolis	Marion
Storey, Joseph L.	Indianapolis	Marion
Stork, Harvey K.	Huntingburg	Dubois
Stork, Urban F. D.	Evansville	Vanderburgh
Storms, Roy B. (S)	Indianapolis	Marion
Stouder, Albert E.	Kempton	Tipton
Stouder, Charles E.	Ellettsville	Owen-Monroe
Stout, Francis E.	Muncie	Delaware-Blackford
Stout, Harry T.	Frankfort	Clinton
Stover, Wendell C.	Boonville	Warrick
Strang, William C.	Indianapolis	Marion
Stratigos, Joseph S.	South Bend	St. Joseph
Strayer, Joseph W.	Lafayette	Tippecanoe
Streck, Francis A.	Lawrenceburg	Dearborn-Ohio
Strecker, William L.	Terre Haute	Vigo
Streepey, Jefferson I.	New Albany	Floyd
Streeter, Ralph T.	Indianapolis	Marion
Stribling, James L.	Columbus	Bartholomew-Brown
Stricker, Paul J.	New Castle	Henry
Strehler, Don A.	Bluffton	Wells
Strickland, James W.	Indianapolis	Marion
Strickland, Neil R.	Indianapolis	Marion
Stringer, Drennon D.	Mishawaka	St. Joseph
Strom, Jack	East Chicago	Lake
Strueh, Paul E.	Evansville	Vanderburgh
Stubbins, William M.	Elkhart	Elkhart
Stucky, Elsworth K.	Indianapolis	Marion
Stucky, Jerry L.	Fort Wayne	Allen
Studebaker, Lloyd R.	LaGrange	LaGrange
Stultz, Quentin F.	Ligonier	Noble
Stump, Loyd K.	Indianapolis	Marion
Stump, Richard L.	Muncie	Delaware-Blackford
Stump, Thomas A.	Indianapolis	Marion
Stumpf, Edwin E.	New Haven	Allen
Stuntz, Edgar C.	Lafayette	Tippecanoe
Sturdevant, Frank M.	Portage	Porter
Sturgis, Donald G.	Sellersburg	Clark
Suelzer, John G.	Indianapolis	Marion
Suess, Robert E.	Indianapolis	Marion
Sugarman, Benjamin E.	French Lick	Orange
Sulit, Severino T.	Hartford City	Delaware-Blackford
Sullivan, James J.	Indianapolis	Marion
Sullivan, John M.	Terre Haute	Vigo
Sullivan, Robert E.	Fort Wayne	Allen
Summerlin, Jack D.	Indianapolis	Marion
Sun, Chen T.	Hebron	Porter
Surian, Michael A.	Bloomington	Owen-Monroe
Surratt, Mary Norris	Indianapolis	Marion
Sutton, William E.	Indianapolis	Marion
Suzuki, Tsutomu T.	Covington	Fountain-Warren
Swaim, J. Franklin	Rockville	Parke-Vermillion
Swan, John R.	Indianapolis	Marion
Swan, Robert E.	Evansville	Vanderburgh
Swank, Lucretia R.	Elkhart	Elkhart
Swearingen, A. G.	Fort Wayne	Allen
Sweeney, Robert M.	South Bend	St. Joseph
Sweet, Howard E.	Richmond	Wayne-Union
Swihart, Danny D.	Elkhart	Elkhart
Swihart, Homer R.	Elkhart	Elkhart
Swihart, John J.	Argos	Marshall
Symmes, Alfred T.	Indianapolis	Marion
Szumilas, Peter P.	Anderson	Madison
Szynal, John S.	Indianapolis	Marion

T

Name	City	County
Tabaka, Francis B.	La Porte	La Porte
Talbert, Pierre C.	Bluffton	Wells
Talbott, Dan E.	Indianapolis	Marion
Tanner, Henry S.	Indianapolis	Marion
Taraba, Ralph W.	Bloomington	Owen-Monroe

Name	City	County
Tate, Elizabeth	Dunkirk	Jay
Tate, James	Kokomo	Howard
Taub, Robert G.	Michigan City	La Porte
Taube, Jack I.	Indianapolis	Marion
Tavel, Morton E.	Indianapolis	Marion
Taylor, Clifford C.	Indianapolis	Marion
Taylor, Donald R.	Muncie	Delaware-Blackford
Taylor, Everett C.	Upland	Grant
Taylor, Frederic W.	Indianapolis	Marion
Taylor, James A.	Anderson	Madison
Taylor, John R.	Palestine, Ill.	Sullivan
Taylor, M. Reed, Jr.	Howe	LaGrange
Taylor, Robert G.	Fort Wayne	Allen
Taylor, Willis D.	Indianapolis	Marion
Teaboldt, George A., Jr.	Logansport	Cass
Teague, Frank W.	Indianapolis	Marion
Teal, Dorothy D. (S)	Columbus	Bartholomew-Brown
Teegarden, Joseph A., Jr.	East Chicago	Lake
Teixler, Victor A.	Indianapolis	Marion
Templeton, Ames R.	Mishawaka	St. Joseph
Templeton, Ian S.	Indianapolis	Jackson-Jennings
Templer, Jerry W.	Indianapolis	Marion
Templin, David B.	Lowell	Lake
Tennant, David L.	Fort Wayne	Allen
Tepfer, Milton	Beech Grove	Marion
Teplinsky, Louis L.	East Chicago	Lake
TerBush, Edward L.	Logansport	Cass
Terrill, Richard W.	Fort Wayne	Allen
Terry, Lloyd S.	Danville	Hendricks
Terry, Robert H.	Boonville	Warrick
Test, Charles E.	Indianapolis	Marion
Teter, George V.	Indianapolis	Marion
Teters, Melvin S. (S)	Middlebury	Elkhart
Tether, Joseph E.	Indianapolis	Marion
Tetrick, Lain	Portage	Porter
Tharp, Donald W.	Muncie	Delaware-Blackford
Tharpe, Ray G.	Indianapolis	Marion
Thatcher, Hugh K., Jr.	Indianapolis	Marion
Thayer, Benet W.	North Vernon	Jackson-Jennings
Theobald, Sterling	Jersey Shore, Pa.	Lake
Thoman, Rex L.	Indianapolis	Marion
Thomas, Andrew C.	Hobart	Lake
Thomas, Charles R.	Indianapolis	Marion
Thomas, Daniel D.	Gary	Lake
Thomas, E. Paul	Indianapolis	Marion
Thomas, Everett W.	Warsaw	Kosciusko
Thomas, Fred A.	Indianapolis	Marion
Thomas, Gerald J.	Gary	Lake
Thomas, Lowell I.	Indianapolis	Marion
Thomas, Michael H.	Indianapolis	Marion
Thomas, Morris E.	Indianapolis	Marion
Thomas, W. Clayton	Carmel	Hamilton
Thompson, Alfred A. (S)	Tyner	Marshall
Thompson, B. Jay	Marion	Grant
Thompson, Claude N.	Waynetown	Montgomery
Thompson, Frank M.	Columbia City	Whitley
Thompson, John M.	South Bend	St. Joseph
Thompson, John V.	Indianapolis	Marion
Thompson, Joseph F.	Indianapolis	Marion
Thompson, Paul D.	Indianapolis	Marion
Thompson, Robert A.	South Bend	St. Joseph
Thompson, Samuel R.	Marion	Grant
Thompson, Walter T.	Jeffersonville	Clark
Thompson, Wayne H.	Indianapolis	Marion
Thompson, Wm. R.	Winamac	Pulaski
Thornton, Harold C.	Indianapolis	Marion
Thornton, Maurice J.	South Bend	St. Joseph
Throop, Frank B.	Indianapolis	Marion
Thurston, Floyd E.	Nashville	Bartholomew-Brown
Ticsay, Bienvenido V.	Michigan City	LaPorte
Tignor, Sterling P.	Kokomo	Howard
Tilden, Margaret H.	Evansville	Vanderburgh
Tiley, George A.	Greenwood	Johnson
Tilka, Edward C.	Hammond	Lake
Tindall, George T.	Indianapolis	Marion
Tindall, William R.	Shelbyville	Shelby
Tinsley, Frank W.	Indianapolis	Marion
Tinsley, Walter B. (S)	Indianapolis	Marion
Tinsley, Walter B., Jr.	Indianapolis	Marion
Tipton, William R.	Greencastle	Putnam
Tirman, Wallace S.	South Bend	St. Joseph
Tischer, E. Paul	Indianapolis	Marion
Tisserand, John B., Jr.	Evansville	Vanderburgh
Todd, David D. (S)	LaJolla, Calif.	Elkhart
Tofaute, John L.	Kokomo	Howard
Tomak, Milton E.	Linton	Greene
Tomlin, Hugh M.	Muncie	Delaware-Blackford
Tomusk, August N.	Fort Wayne	Allen
Tondra, John M.	Indianapolis	Marion
Topolgus, James N.	Bloomington	Owen-Monroe
Topping, Malachi C.	Terre Haute	Vigo
Torrella, Jose A.	Indianapolis	Marion
Toumey, Fred L.	Indianapolis	Marion
Tower, James H., Jr.	Shelbyville	Shelby
Tower, Thomas K.	Campbellsburg	Washington
Towles, Jeff H.	Fort Wayne	Allen
Townley, Normand T.	Indianapolis	Marion
Trachtenberg, Lee	Munster	Lake
Tranter, William F.	Ft. Myers, Fla.	Tipton
Traver, Perry C. (S)	South Bend	St. Joseph
Treon, James F. (S)	Aurora	Dearborn-Ohio
Trepagnier, Francis B.	East Chicago	Lake
Trier, Herbert P.	Fort Wayne	Allen
Trimble, John G.	Kokomo	Howard
Trout, Carl J.	Lafayette	Tippecanoe
Trout, David J.	Lafayette	Tippecanoe
Troutwine, William R.	Crown Point	Lake
Troy, Jack M.	Munster	Lake
Troyer, Dana O.	Goshen	Elkhart
Troyer, George W.	Goshen	Elkhart
Troyer, Marlin L.	South Bend	St. Joseph
Trudgen, Spencer F.	Indianapolis	Marion
Trusler, H. Marshall	Indianapolis	Marion
Trusler, Harold M. (S)	Indianapolis	Marion
Tubbs, George R. (S)	Lafayette	Tippecanoe
Tuchman, Joseph H.	Indianapolis	Marion
Tucker, Warren S.	Indianapolis	Marion
Tufekcioglu, Erdogan	Valparaiso	Porter
Tuholski, James M.	Evansville	Vanderburgh
Turgi, Robert W.	Gary	Lake
Turley, Verne L. (S)	Fowler	Benton
Turner, Anna Goss	Madison	Jefferson-Switzerland
Turner, Harold B. (S)	Bloomfield	Greene
Turner, Isabel B.	Evansville	Vanderburgh
Turner, John P.	Goshen	Elkhart
Turner, Maurice A.	Martinsville	Morgan
Tweedall, Daniel C.	Evansville	Vanderburgh
Tyler, Edward A.	Indianapolis	Marion
Tyler, Frank T. (S)	New Albany	Floyd
Tyner, Harlan H.	Indianapolis	Marion
Tyrrell, Joseph J.	Calumet City, Ill.	Lake
Tyrrell, Thomas C.	Calumet City, Ill.	Lake

U

Ullom, Ralph B.	Indianapolis	Marion
Ulrey, Robert P.	Elwood	Madison
Underwood, George M.	Lafayette	Tippecanoe
Ungemach, Willo F.	Fort Wayne	Allen
Urbanski, Walter P.	Whiting	Lake

Name	City	County
V		
Vagner, S. Bernard	South Bend	St. Joseph
Valderrama, Hugo	Munster	Lake
Valencia, Monico	East Gary	Lake
Valenzuela, Roberto D.	Gary	Lake
Valenzuela, Sofia S.	Gary	Lake
Van Bokkelen, Robert W.	Mooresville	Morgan
Van Buskirk, Edmund L.	Lafayette	Tippecanoe
Vance, William C.	Terre Haute	Vigo
Van Denbark, Howard M.	Kokomo	Howard
Van Den Bosch, Wallace R.	Lafayette	Tippecanoe
Vandertoll, Donald	Highland	Lake
Vandivier, James M.	Indianapolis	Marion
Vandivier, Robert M.	Indianapolis	Marion
Van Dorn, Myron J.	Indianapolis	Marion
Van Fleet, Josephine	Indianapolis	Marion
Van Fleit, William E.	South Bend	St. Joseph
Van Kirk, John R.	W. Lafayette	Tippecanoe
Van Kirk, Paul P.	Frankfort	Clinton
Van Meter, C. Powell	Indianapolis	Marion
Van Ness, William C.	Summitville	Madison
Van Tassel, Charles J.	Indianapolis	Marion
Van Vactor, Helen D.	Indianapolis	Marion
Van Wienen, John	Martinsville	Morgan
Vaughn, Walter R.	Vincennes	Knox
Veach, Lester W. (S)	Bainbridge	Putnam
Veach, Richard L.	Bainbridge	Putnam
Veach, William L.	Terre Haute	Vigo
Vellios, Frank	Indianapolis	Marion
Venables, Albert J.	Evansville	Vanderburgh
Vergara, Abelardo	Highland	Lake
Vermilya, Robert W.	Lafayette	Tippecanoe
Viehe, Robert W. (S)	Evansville	Vanderburgh
Vietzke, Paul C. F.	Valparaiso	Porter
Vincent, William A.	Evansville	Vanderburgh
Viney, Charles L.	Logansport	Cass
Vingis, Bronie A.	Greenfield	Hancock
Viray, Victoriano G.	Crawfordsville	Montgomery
Visher, John W. (S)	Evansville	Vanderburgh
Vitacca, Rocco J.	Munster	Lake
Vivian, Donald E.	New Castle	Henry
Vlaskamp, Elaine	Muncie	Delaware-Blackford
Vogel, John L.	Columbia City	Whitley
Vogel, Lloyd A., Jr.	Fort Wayne	Allen
Vogel, L. John	Mount Vernon	Posey
Voges, Edward C.	Terre Haute	Vigo
Volan, George J.	Gary	Lake
Vollrath, Victor J.	Indianapolis	Marion
von Asch, George	La Porte	La Porte
von der Lieth, Wm. C.	Vincennes	Knox
Von Der Haar, Gerard	Indianapolis	Marion
VonderHaar, Thomas E.	Evansville	Vanderburgh
Voorhees, Robert J.	Fort Wayne	Allen
Voorhies, McKinley	Gary	Lake
Vore, Hugh A. (S)	Warsaw	Lake
Vore, Louring W.	Plymouth	Marshall
Vore, Robert E.	Indianapolis	Marion
Vormohr, Joseph F.	Portland	Jay
Voskuhl, William L.	Charlestown	Clark
Voss, Gert	Muncie	Delaware-Blackford
Voyles, Harry E. (S)	New Albany	Floyd
W		
Wachob, Tom W., Jr.	Kokomo	Howard
Wack, James E.	South Bend	St. Joseph
Wade, Reynolds W.	New Haven	Allen
Wagner, Anabel R.	Lafayette	Tippecanoe
Wagner, Arthur L.	Jasper	Dubois
Wagner, David G.	Goshen	Elkhart
Wagner, Lindley H.	Lafayette	Tippecanoe
Wagner, Richard	Huntington	Huntington
Wagner, Virginia M.	Indianapolis	Marion
Wagoner, B. D.	Union City	Randolph
Wagoner, Don J.	Burlington	Carroll
Wagoner, George W.	Delphi	Carroll
Wagoner, John R.	Anderson	Madison
Wagoner, Marilyn L.	Burlington	Carroll
Wainscott, Clinton S., Jr.	Indianapolis	Marion
Wait, Jerome H.	Columbia City	Whitley
Waits, Chester L.	Lafayette	Tippecanoe
Waitt, Paul	Noblesville	Hamilton
Walden, Heinz J.	Terre Haute	Vigo
Waldo, Guy H.	Bedford	Lawrence
Waldo, J. Thayer	Indianapolis	Marion
Walerko, Frank M.	St. Paul, Minn.	St. Joseph
Walker, Adolph P.	East Chicago	Lake
Walker, Edwin M., Jr.	South Bend	St. Joseph
Walker, Floyd B.	Fort Wayne	Allen
Walker, Jack M.	Muncie	Delaware-Blackford
Walker, Robert M.	Rhodesia, Africa	Marion
Walker, Thomas M.	Brownsburg	Hendricks
Wallace, Collins R.	Fort Wayne	Allen
Wallace, Elmer L.	New Albany	Floyd
Wallace, Hawthorne C. (S)	Crawfordsville	Montgomery
Walsh, John H.	Fort Wayne	Allen
Walter, Paul A. F. III	Evansville	Vanderburgh
Walter, Robert F.	Evansville	Vanderburgh
Walters, Charles E.	Mishawaka	St. Joseph
Walters, Jack L.	Franklin	Johnson
Walters, William H.	Michigan City	La Porte
Walther, Joseph E.	Indianapolis	Marion
Walton, F. Richard	Rochester	Fulton
Walton, R. Lee	Marion	Grant
Walton, William M.	Indianapolis	Marion
Wambo, John M.	Orange, Calif.	Wayne-Union
Wang, Tieh C.	East Chicago	Lake
Warbinton, Fred P.	Plainfield	Hendricks
Ward, Gerald F.	Fort Wayne	Allen
Ward, James W.	South Bend	St. Joseph
Ward, Robert A.	Tell City	Perry
Ward, Wesley C.	Indianapolis	Marion
Ware, John R.	Russiaville	Howard
Warfield, Chester H.	Fort Wayne	Allen
Warman, Alvah P. (S)	Indianapolis	Marion
Warn, William J.	Milan	Ripley
Warneke, Charles H.	Indianapolis	Marion
Warner, Charles L.	Evansville	Vanderburgh
Warren, Carroll B.	Marion	Grant
Warren, Robert J.	Richmond	Wayne-Union
Warrick, Francis B.	Richmond	Wayne-Union
Warrick, Homer L.	Osceola	St. Joseph
Warriner, James B.	Indianapolis	Marion
Warshaw, Seymour	Columbus	Bartholomew-Brown
Warvel, John H., Jr.	Indianapolis	Marion
Washington, Wilbert	Indianapolis	Marion
Wass, Robert W.	Bloomington	Owen-Monroe
Watkins, James K.	Marion	Grant
Watring, Watson G.	APO, San Francisco, Calif.	Marion
Watterson, Gerald T.	Connersville	Fayette-Franklin
Way, James A.	Bloomington	Owen-Monroe
Waymire, William M.	Franklin	Johnson
Weaver, Dorothy E.	Indianapolis	Marion
Webb, Harry D.	Anderson	Madison
Webb, Lawrence C.	Dana	Parke-Vermillion
Weber, Edgar H.	Evansville	Vanderburgh
Weber, John R.	Fort Wayne	Allen
Weber, Joseph G. S.	Terre Haute	Vigo
Webster, Paul L.	Lafayette	Tippecanoe
Webster, Robert K.	Brazil	Clay
Weddle, Chas. O.	Lebanon	Boone
Weeks, Patrick H. (S)	Michigan City	La Porte

Name	City	County
Weems, Mallory P.	Jeffersonville	Clark
Weida, Jerry M.	Lafayette	Tippecanoe
Weigand, Clayton G.	Indianapolis	Marion
Weinbaum, Jack G.	Terre Haute	Vigo
Weinberg, Benjamin A.	Whiting	Lake
Weinberg, Samuel	Marion	Grant
Weinland, George C.	Columbus	Bartholomew-Brown
Weinstock, Adolph	Rolling Prairie	La Porte
Weirich, Charles I.	Butler	De Kalb
Weisenberger, Brockton L.	Columbus	Bartholomew-Brown
Weiskopf, Henry S.	Gary	Lake
Weisner, Richard M.	Eaton	Delaware-Blackford
Weiss, Albert E.	Michigan City	La Porte
Weiss, Eugene	South Bend	St. Joseph
Weiss, Henry G. (S)	Evansville	Vanderburgh
Weiss, Louis L.	Anderson	Madison
Weissman, Charles G.	Hammond	Lake
Weitemier, Raymond A.	Richmond	Wayne-Union
Weitzel, Roland E.	Princeton	Gibson
Welborn, Mell B.	Evansville	Vanderburgh
Welch, Norbert M.	Vincennes	Knox
Weldy, Bryce P.	Hartford City	Delaware-Blackford
Weller, Ralph D.	Rossville	Clinton
Weller, Wendell A.	Lafayette	Tippecanoe
Wells, William R.	Princeton	Gibson
Wenger, James E.	Nappanee	Elkhart
Wenzler, Paul J.	Bloomington	Owen-Monroe
Werry, Leslie E. (S)	Hartford City	Delaware-Blackford
Wertenberger, Morris D.	Richmond	Wayne-Union
Wesemann, Merrill M.	Franklin	Johnson
West, Joseph L.	Indianapolis	Marion
West, Roger F.	Terre Haute	Vigo
Westerman, Richard L.	Evansville	Vanderburgh
Westfall, B. Kemper	Indianapolis	Marion
Westfall, George S.	Goshen	Elkhart
Westhaysen, Peter V.	Munster	Lake
Weybright, William L.	Maharashtra State, India	Delaware-Blackford
Wharton, Russell O. (S)	Gary	Lake
Wheeler, Barth E.	Huntington	Huntington
Wheeler, Byron C.	Terre Haute	Vigo
Wheeler, David E.	Indianapolis	Marion
Whitaker, Jack D.	Anderson	Madison
Whitcomb, Roger F.	Shelbyville	Shelby
White, Donald G.	South Bend	St. Joseph
White, Donald J.	Indianapolis	Marion
White, Douglas H.	Indianapolis	Marion
White, Gilbert H., Jr.	Hammond	Lake
White, Harvey E.	Farmland	Randolph
White, John B., Jr.	Indianapolis	Marion
White, John P., Jr.	Bloomington	Owen-Monroe
Whitlock, Coleman M., Jr.	Elkhart	Elkhart
Whitlock, Merle E.	Mishawaka	St. Joseph
Wiatt, Leonard H.	Knightstown	Henry
Wick, Alfred A.	Fort Wayne	Allen
Wickstrom, Otto W., Jr.	Columbus	Bartholomew-Brown
Wickstrom, Otto W.	Columbus	Bartholomew-Brown
Widdifield, G. E.	Indianapolis	Marion
Wierzalis, Edward F.	Fort Wayne	Allen
Wiethoff, Clifford A.	Seymour	Jackson-Jennings
Wigh, Russell	Columbus	Bartholomew-Brown
Wiland, Olin K.	Richmond	Wayne-Union
Wilbrandt, Hans R.	Indianapolis	Marion
Wilder, Gordon B.	Anderson	Madison
Wilhelm, Agatha M.	South Bend	St. Joseph
Wilhelm, Guido P.	New Castle	Henry
Wilhelmus, Gilbert M.	Evansville	Vanderburgh
Wilhelmus, Kenneth	Evansville	Vanderburgh
Wilkens, Irvin W.	Indianapolis	Marion
Wilkinson, Roger L.	Anderson	Madison
Willan, Horace R. (S)	Martinsville	Morgan
Willard, Richard	Bluffton	Wells
Willardo, Albert T.	Hammond	Lake
Williams, Alexander S.	Gary	Lake
Williams, Berniece M.	Fort Wayne	Allen
Williams, Carl N.	Gary	Lake
Williams, Earl K.	Frankfort	Clinton
Williams, Edwin D.	Gary	Lake
Williams, Everett W.	Columbus	Bartholomew-Brown
Williams, Fielding P.	Huntingburg	Dubois
Williams, Francis M.	Anderson	Madison
Williams, Fred R.	Gary	Lake
Williams, Harold W.	Indianapolis	Marion
Williams, Howard S.	Indianapolis	Marion
Williams, Hugh L.	Indianapolis	Marion
Williams, Paul A.	Rensselaer	Jasper
Williams, Paul D.	Indianapolis	Marion
Williams, Robert D.	Anderson	Madison
Williams, Robert H.	Anderson	Madison
Willis, Charles F.	Evansville	Vanderburgh
Willison, George W.	Evansville	Vanderburgh
Willner, Alan	Clarksville	Clark
Wills, Max	Auburn	De Kalb
Wilson, David	Evansville	Vanderburgh
Wilson, Douglas J.	Mishawaka	St. Joseph
Wilson, Fred L.	Terre Haute	Vigo
Wilson, Fred M.	Indianapolis	Marion
Wilson, James M.	South Bend	St. Joseph
Wilson, John	Columbia City	Whitley
Wilson, John D.	Evansville	Vanderburgh
Wilson, Ned A.	Marion	Grant
Wilson, Norman J.	Crown Point	Lake
Wilson, Norman K.	Kokomo	Howard
Wilson, Oliver R.	Morgantown	Morgan
Wilson, Orley E.	Elkhart	Elkhart
Wilson, Paul H.	Logansport	Cass
Wilson, Ralph	Evansville	Vanderburgh
Wilson, Roland B.	Fort Wayne	Allen
Wilson, Wymond B.	Mentone	Kosciusko
Wimmer, Robert N. (S)	Michigan City	Lake
Wince, Leland L.	Muncie	Delaware-Blackford
Wind, Joseph L.	South Bend	St. Joseph
Wing, Herman	Gary	Lake
Winklepleck, A. M.	Connersville	Fayette-Franklin
Winter, Donald K.	Logansport	Cass
Winter, William P.	Martinsville	Morgan
Winters, Peter L.	Indianapolis	Marion
Wirey, Harold R.	Indianapolis	Marion
Wise, Charles L.	Camden	Carroll
Wise, William R.	Indianapolis	Marion
Wiseheart, Robert H.	Lebanon	Boone
Wiseman, V. Earle (S)	Greencastle	Putnam
Wishard, Wm. N., Jr.	Indianapolis	Marion
Witt, William R.	Jeffersonville	Clark
Wixted, John F.	South Bend	St. Joseph
Wixted, Julia L.	South Bend	St. Joseph
Woerner, Thomas E.	Indianapolis	Marion
Wohlfeld, Julius B.	Bedford	Lawrence
Wojcik, Ladislas D.	Marion	Grant
Wolf, Harry C.	Indianapolis	Marion
Wolfe, Morton F.	New Albany	Floyd
Wolfe, Nelson A.	New Albany	Floyd
Wolfram, Don J.	Indianapolis	Marion
Wolverton, George M.	Clarksville	Clark
Woner, John W.	Linton	Greene
Wong, Norman F.	Lafayette	Tippecanoe

Name	City	County
Wong, Samuel N.	Hammond	Lake
Wood, Donald E.	Indianapolis	Marion
Wood, Opal L.	Brazil	Clay
Woodall, Robert L.	Washington	Vanderburgh
Woodard, Abram S., Jr.	Indianapolis	Marion
Woodbury, Clarence R.	Anderson	Madison
Woodbury, John W.	Marion	Grant
Wooden, Thomas F.	Munster	Lake
Woods, Arba L. (S)	Evansville	Posey
Woodward, Ben E.	Evansville	Vanderburgh
Woodward, William M.	Gary	Lake
Woolery, Richard H.	Bedford	Lawrence
Woolling, Kenneth R.	Indianapolis	Marion
Work, Bruce A., Jr.	Ann Arbor, Mich.	Clinton
Work, Bruce A.	Frankfort	Clinton
Worley, Ansel C. (S)	Ft. Lauderdale, Fla.	Allen
Worley, Henry L.	New Albany	Floyd
Worley, Joseph P.	Indianapolis	Marion
Worth, C. Willard	Milroy	Rush
Wray, James B.	Indianapolis	Marion
Wrege, Malcolm L.	Indianapolis	Marion
Wright, Cecil S. (S)	Anderson	Madison
Wright, James J.	Indianapolis	Marion
Wright, J. Wm., Jr.	Indianapolis	Marion
Wright, Wm. C. (S)	Fort Wayne	Allen
Wu, Stewart	Valparaiso	Porter
Wunsch, Charles M.	Indianapolis	Marion
Wurster, Herbert C.	Mishawaka	St. Joseph
Wyatt, James L., III	Fort Wayne	Allen
Wynegar, David E.	Richmond	Wayne-Union
Wyttenbach, John E.	Indianapolis	Marion

Y

Name	City	County
Yacko, Michael L.	Indianapolis	Marion
Yale, Charles A.	Fairmount	Grant
Yanson, Mannfredo R. S.	Oxnard, Calif.	Lake
Yarling, John L.	Muncie	Delaware-Blackford
Yast, Charles J.	Gary	Lake
Yates, Donald L.	Terre Haute	Vigo
Yegerlehner, Roscoe S.	W. Lafayette	Tippecanoe
Yingling, Robert J.	Indianapolis	Marion
Yocum, Paul S., Sr.	Coral Gables, Fla.	Steuben
Yocum, Paul S., Jr.	Gary	Lake
Yocum, William S.	Gary	Lake
Yoder, C. Richard	Elkhart	Elkhart
Yoder, Carl J.	Middlebury	Elkhart
Yoder, Dewey D.	Pierceton	Whitley
Yoder, Johnathan G.	Middlebury	Elkhart
Yoder, Richard P.	Bluffton	Wells
Young, C. Curtis, Jr.	Evansville	Vanderburgh
Young, Don J.	Indianapolis	Marion
Young, George M.	Gary	Lake
Young, Gerald S.	Muncie	Delaware-Blackford
Young, James W.	Indianapolis	Marion
Young, John E.	Indianapolis	Marion
Young, John M.	Indianapolis	Marion
Young, John T.	Indianapolis	Marion
Young, Joseph W.	Greenwood	Johnson
Young, Ralph H.	Goshen	Elkhart
Young, Robert G.	Marion	Grant
Young, Robert L.	Gary	Lake
Youngs, Paul E.	New Albany	Floyd
Yunker, Philip E.	Howe	LaGrange

Z

Name	City	County
Zahrt, Frank H.	LaPorte	LaPorte
Zalac, Donald A.	Michigan City	La Porte
Zallen, Stanley G.	Hammond	Lake
Zaring, Byron K.	Columbus	Bartholomew-Brown
Zehr, Noah (S)	Fort Wayne	Allen
Zeier, Francis G.	Evansville	Vanderburgh
Zeiger, Irvin L.	South Bend	St. Joseph
Zeitler, Philip S.	Elkhart	Elkhart
Zell, Evertson H.	Indianapolis	Marion
Zeman, Ruth E.	Indianapolis	Marion
Zeps, E. Frances	Indianapolis	Marion
Zerfas, Charles P. A.	Beech Grove	Marion
Zerfas, Phyllis K.	Acton	Marion
Zimmer, Henry J.	Mishawaka	St. Joseph
Zimmerman, Harold	Evansville	Vanderburgh
Zimmerman, Wm. H.	Syracuse	Elkhart
Zink, Robert O.	Madison	Jefferson-Switzerland
Ziperman, H. Haskell	Canal Zone	Marion
Ziss, Robert C.	Evansville	Vanderburgh
Zore, Joseph J.	Richmond	Wayne-Union
Zucker, Edward	Gary	Lake
Zweig, Elmer S.	Fort Wayne	Allen
Zwerner, Paul F.	Terre Haute	Vigo
Zwick, Harold F.	Decatur	Adams
Zwickel, Ralph E.	Evansville	Vanderburgh
Zydlo, Stanley M.	Wabash	Wabash

ROSTER OF MEMBERS BY COUNTIES

Physicians are listed in the county medical society in which they hold membership.

(Paid-up members of the Indiana State Medical Association as of May 1, 1968.)

ADAMS COUNTY

Berne

(*Zip Code* 46711)

Beaver, Norman E. .....165 W. Water St.
Boze, Robert L. .....265 W. Water St.
Dester, Herbert E. (S).....424 Compromise St.
Graber, Martin J.....265 W. Water St.

Decatur

(*Zip Code* 46733)

Burk, James M.....115 N. Third St.
Carroll, John C.....226 S. Second St.
Doan, John E. .....222 S. Second St.
Freeby, C. William.....227 S. Second St.
Girod, Arthur H.....203 N. 12th St.
Kohne, Gerald J.....134 S. Third St.
Parrish, Richard K.....238 S. Second St.
Reppert, Roland L.....222 S. Second St.
Rich, Norval S.....415 W. Madison
Zwick, Harold F.....227 S. Second St.

ALLEN COUNTY

Silvero, Hubert L.
225 N. Main St., Churubusco (46723)

Fort Wayne

(*Zip Code* 468 *plus zone number*).

A

Acker, Herbert K...617 W. Washington Blvd. (02)
Adams, E. Wade.....3124 E. State Blvd. (05)
Ahlbrand, Roland C.....4233 E. State St. (05)
Aiken, Arthur F.....3010 E. State Blvd. (05)
Aiken, Nevin E.....3010 E. State Blvd. (05)
Aldred, Allen W.....3024 Fairfield Ave. (07)
Anderson, Ernest....4349 S. Anthony Blvd. (06)
Anderson, Garland D.....5015 Riviera Ct. (05)
Andrew, Jerald L.....5717 S. Anthony Blvd. (06)
Arata, James A.....2802 E. State Blvd. (05)
Arata, Justin E.....3124 E. State Blvd. (05)
Ashman, William C...2902 S. Fairfield Ave. (07)
Aust, Charles H.....Lutheran Hospital (07)

B

Bahr, Robert E.....3217 Lake Ave. (05)
Bailey, Paul P. (S).206 Medical Center Bldg. (02)
Ball, John R.....320 Medical Center Bldg. (02)
Ball, Margaret Jane....4112 S. Harrison St. (07)
Baltes, Joseph H.....821 Broadway (02)
Barch, John W.....1301 S. Harrison St. (02)
Bash, Wallace E.....2902 Fairfield Ave. (07)
Baumgartner, Jeraldine.515½ W. Wayne St. (02)
Beams, Ralph H...715 Medical Center Bldg. (02)
Beierlein, Karl M.....3124 E. State Blvd. (05)
Beights, Raymond S.....3310 E. State Blvd. (05)
Bergendahl, Emil H.
102 Medical Center Bldg. (02)
Berghoff, James R.....3702 Rupp Dr. (05)
Beutler, Theodore V.....527 W. Berry St. (02)
Billingsley, John S.....2902 Fairfield Ave. (07)
Bixler, James A.....3124 E. State Blvd. (05)
Blichert, Peter A.
Three Rivers North, Suite 108 (02)
Bollheimer, Don A...623 Medical Center Bldg. (02)
Bossard, John W...111 Medical Center Bldg. (02)
Bower, Richard E.....3610 Brooklyn Ave. (07)
Bowers, Gah T.....3000 Circumurban Blvd. (05)
Bowers, George W.....2902 Fairfield Ave. (07)
Bowers, Jesse W. (S).....418 Gettle Bldg. (02)
Brandt, William E.....618 W. Berry St. (02)
Braunlin, Robert J..418 Medical Center Bldg. (02)
Bridges, William L..520 Medical Center Bldg. (02)
Bromley, Luman W.....2730 E. State Blvd. (05)
Brosius, Robert H. W.....1603 Wells St. (08)
Brown, Frederic W.....2609 Fairfield Ave. (07)
Brown, Garland R.....5522 Hamilton Rd. (05)
Brucker, Perry A.
Three Rivers East, Suite 107 (02)
Bryan, Franklin A...700 Indiana Bank Bldg. (02)
Buckner, George D.....1003 Fulton St. (02)

C

Carlo, Ernest R. (S).....5205 Indiana Ave. (07)
Chambers, Alan R.
Three Rivers East, Suite 103 (02)
Chase, James A.....1635 Broadway (04)
Clark, William R.....3622 S. Calhoun St. (07)
Clark, William R., Jr.....710 W. Wayne St. (02)
Close, Frederick W.....3024 Fairfield Ave. (07)
Cochran, Harry A., Jr...1301 S. Harrison St. (02)
Conley, John E. (S).....620 W. Berry St. (02)
Connelly, Jerry H.....3217 Lake Ave. (05)
Connelly, Richard D.....3217 Lake Ave. (05)
Cooney, Charles J.....527 W. Berry St. (02)
Cottrell, Robert F...234 Medical Center Bldg. (02)
Craig, Richard M.....2902 Fairfield Ave. (07)
Cuff, Steve C.....700 W. Berry St. (04)
Culp, John E.....2902 Fairfield Ave. (07)

D

Datzman, Richard C.
520 Medical Center Bldg. (02)
Dauscher, Dean D.....4628 S. Calhoun St. (07)
Davidoff, Manuel A.....3610 Brooklyn Ave. (07)
Donesa, Antonio B.....534 W. Berry St. (02)
Dunstone, H. Carter
Three Rivers East, Suite 105 (02)

E

Elston, Lynn W. (S)
604 Medical Center Bldg. (02)
Elston, Ralph W.....2305 Randall Rd. (04)

F

Farquhar, John S., Jr...3610 Brooklyn Ave. (07)
Ferguson, Arthur N. (S)..2902 Fairfield Ave. (07)
Fiacable, Joseph P...227 E. Washington Blvd. (02)
Fichman, Abraham M.....323 W. Berry St. (02)
Flaherty, Robert A.....2902 Fairfield Ave. (07)
Foy, Thomas D.....1104 W. State Blvd. (08)
Frankhouser, C. M. A., Jr.
520 Medical Center Bldg. (02)
Fullam, Richard G..234 Medical Center Bldg. (02)

G

Garton, Harry W. (S)
3603 W. Hamilton Rd., R. R. 6
Gastineau, David C.
520 Medical Center Bldg. (02)
Gentile, Jonathan Paul..2716 Fairfield Ave. (07)
Gerding, William J...2638½ S. Anthony Blvd. (03)
Giffin, Charles S...102 Medical Center Bldg. (02)
Gladstone, Naf H.....335 W. Berry St. (02)
Glassley, Stephen H.....3010 E. State Blvd. (05)
Glock, Maurice E...229 Medical Center Bldg. (02)
Glock, Wayne R.....2609 Fairfield Ave. (07)

Goebel, Carl W.....327 W. Creighton Ave. (07)
Gould, John C.....2424 Fairfield Ave. (07)
Graham, George M.....1301 S. Harrison St. (02)
Graham, James C.....1834 S. Lafayette (03)
Green, Robert F.....614 W. Berry St. (02)
Greenlee, Robert L...227 E. Washington St. (02)
Griest, Walter D.....3024 Fairfield Ave. (04)
Griffith, Harold R..520 Medical Center Bldg. (02)

H

Hackett, Walter G...6028 U. Huntington Rd. (04)
Haffner, Herman G.....202 E. Jefferson St. (02)
Halaby, Fouad A.....700 W. Berry St. (04)
Haley, Alvin J.....3217 Lake Ave. (05)
Hall, William R...234 Medical Center Bldg. (02)
Haller, Richard C.....3124 E. State Blvd. (05)
Hamilton, Emory D.
234 Medical Center Bldg. (02)
Hamilton, George M.....3124 E. State Blvd. (05)
Hasewinkle, August M...2828 E. State Blvd. (05)
Hastings, Warren C.....2120 Carew St. (05)
Hattendorf, Anton P.
716 Medical Center Bldg. (02)
Havens, Russell E..228 Medical Center Bldg. (02)
Herendeen, Thomas L....3124 E. State Blvd. (05)
Hershberger, Philip G..2609 Fairfield Ave. (07)
Hickman, Donald M.....3217 Lake Ave. (05)
Hillery, Robert L.....942 Ridgewood Dr. (05)
Hipskind, Richard E....123 W. Rudisill Blvd. (07)
Hoffman, Arthur F.
Three Rivers North, Suite 105 (02)
Holsinger, Robert E.
115 Medical Center Bldg. (02)
Hoover, Joseph R.....3610 Brooklyn Ave. (07)
Howe, Fordyce L.....1525 Oxford St. (06)
Hull, DeWayne L.
Three Rivers East, Suite 107 (02)

I

Irmscher, George W...1417 N. Anthony Blvd. (05)
Irmscher, Jane M.....2024 Florida Dr. (05)
Isenogle, Kenneth F.
418 Medical Center Bldg. (02)

J

Jackson, John F...519 Medical Center Bldg. (02)
Johnston, Richard M.....2330 Beacon St. (05)
Jontz, Joe G.....3124 E. State Blvd. (05)
Jontz, Richard L...520 Medical Center Bldg. (02)
Juergens, Richard B.....1709 Prairie Lane (08)
Jurgensen, Walter T.....3415 Fairfield Ave. (07)

K

Karol, Herbert J.
Three Rivers East, Suite 103 (02)
Kaufman, Julian R.....3124 E. State Blvd. (05)
Keck, Carleton A.....2902 Fairfield Ave. (07)
Kent, Richard N...327 Medical Center Bldg. (02)
Keyes, Robert C.....131 E. Tillman Rd. (06)
Kidder, Orva T.....Irene Byron Hospital (08)
Kilgore, Byron
Three Rivers East, Suite 106 (02)
Kimbrough, Robert F...2730 E. State Blvd. (05)
Kleifgen, William A.....446 W. Pontiac St. (07)
Kleopfer, Ronald G.....3124 E. State Blvd. (05)
Klooze, Kenneth W.....3610 Brooklyn Ave. (07)
Knight, Lewis W.....3124 E. State Blvd. (05)
Krueger, John E.....5717 S. Anthony Blvd. (06)
Kruse, Walter E. (S).....410 McKinnie (06)

L

Ladig, Donald S.....337 E. Berry St. (02)
Laker, Gene C.....2407 Fairoak Dr. (07)
Laker, Richard J.....2407 Fairoak Dr. (07)
Lampe, Elfred H.....2902 Fairfield Ave. (07)
Laycock, Richard M.....6642 St. Joe Rd. (05)
Lee, John W.....3124 E. State Blvd. (05)
Leming, Ben L.....2902 Fairfield Ave. (07)
Lenk, George G.....1805 E. Washington St. (04)
Lloyd, Robert P.....723 Fulton St. (02)
Logan, Richard S.....3124 E. State Blvd. (05)
Lohman, Robert M.....4017 S. Wayne St. (06)
Lorman, James G...520 Medical Center Bldg. (02)
Loudermilk, Jack L..520 Medical Center Bldg. (02)
Luckey, James E.
Three Rivers North, Suite 105 (02)
Lyon, William C.....710 W. Wayne St. (04)

M

McCallister, John W.....3124 E. State Blvd. (05)
McCoy, Roy R.....3701 S. Harrison St. (07)
McDowell, George A.
215 Medical Center Bldg. (02)
McEachern, Cecil G.....2424 Fairfield Ave. (07)
McKeeman, Donald H.....633 W. Wayne St. (02)
Mackel, Frederick O.....2609 Fairfield Ave. (07)
Mann, Richard E.....3124 E. State Blvd. (05)
Manning, George C.....534 W. Berry St. (02)
Marshall, Caesar L.....438 E. Lewis St. (02)
Mastrangelo, Michael J.
Three Rivers East, Suite 104 (02)
Mejia, Ivan.....2330 Beacon St. (05)
Mensch, James R.....1104 W. State Blvd. (08)
Mercer, Samuel R..702 Medical Center Bldg. (02)
Meyer, Herman A.....1030 W. Wayne St. (04)
Meyer, Theodore O..622 Medical Center Bldg. (02)
Michaelis, Stephen C.....3610 Brooklyn Ave. (07)
Miller, Don E.....2902 Fairfield Ave. (07)
Miller, H. Paul.....2715 Broadway (07)
Miller, Mahlon F...222 Medical Center Bldg. (02)
Miller, Orval J.....324 W. Berry St. (02)
Miller, Richard H.....511 W. Wayne St. (02)
Miller, Robert B.....3124 E. State Blvd. (05)
Miller, William J.....2902 Fairfield Ave. (07)
Moats, Carl F.....4007 W. Wayne St. (04)
Moats, George E. (S)
617 E. Washington St. (02)
Moeller, Victor C.....2424 Fairfield Ave. (07)
Morey, Edwin E.....2902 Fairfield Ave. (07)
Morgan, Milton M.....1147 S. Lafayette St. (02)
Mortenson, Leland J. (S)
3610 Brooklyn Ave. (07)
Mueller, Lawrence W.
533 W. Washington Blvd. (02)
Murdock, Harvey L. (S)
417 Medical Center Bldg. (02)

N-O

Nill, John H.....5717 S. Anthony Blvd. (06)
Nolan, Gerald R.....5717 S. Anthony Blvd. (06)
Oatman, Jack G...332 Medical Center Bldg. (02)
O'Brian, John F.....3217 Lake Ave. (05)
O'Rourke, Carroll.....604 W. Berry St. (02)
Ortiz, Ramon.....2003 Kenwood Ave. (05)

P

Painter, Donald S...222 Medical Center Bldg. (02)
Parker, Carey B. (S)..1105 S. Harrison St. (02)
Parrot, Donald J.....810 W. State Blvd. (08)
Patterson, Jack W.....717 Broadway (02)
Pearson, Huey L.....2314 S. Hanna (03)
Perrin, Kermit F.....2701 S. Anthony Blvd. (06)
Perry, Frederic G.....2902 Fairfield Ave. (07)
Pickett, Merle E.....234 Medical Center Bldg. (02)
Popp, Milton F.....606 Medical Center Bldg. (02)
Powell, M. Jack.....730 W. Berry St. (04)
Priddy, Marvin E.....5010 Riviera Court (05)

Q-R

Rank, William B.
Three Rivers North, Suite 107 (02)
Ransburg, Robert C.
520 Medical Center Bldg. (02)
Reed, John D.....3124 E. State Blvd. (05)
Reszel, Paul A.....3124 E. State Blvd. (05)
Rhee, Sang K.....3319 Cabot Lane (05)

Richards, Alan D.....4628 S. Calhoun St. (07)
Richardson, Joseph H...2828 E. State Blvd. (05)
Rissing, Walter J.....229 W. Berry St. (02)
Roser, Arthur J.....801 E. State Blvd. (05)
Rossiter, Dudley L. (S).3629 S. Harrison St. (07)
Rothberg, Maurice.....625 W. Berry St. (02)
Rousseau, John W.....3124 E. State Blvd. (05)

S

Safirstein, Moises.....2330 Beacon St. (05)
Sahlmann, Hans (S)....3418 S. Hanna St. (06)
Salon, Harry W.....535 W. Berry St. (02)
Salon, Joel W.....604 W. Wayne St. (02)
Salon, Nathan L. (S).....604 W. Wayne St. (02)
Sarver, Francis E..320 Medical Center Bldg. (02)
Schaab, Eric.....131 E. Tillman Rd. (06)
Scheeringa, Ronald H....2902 Fairfield Ave. (07)
Schlademan, Karl R.
520 Medical Center Bldg. (02)
Schleinkofer, Robert M..2828 E. State Blvd. (05)
Schloss, Robert P.....5717 S. Anthony Blvd. (06)
Schmidt, Eugene E..228 Medical Center Bldg. (02)
Schmoll, Robert J.....521 W. Wayne St. (02)
Schneider, Louis A.....700 Broadway (02)
Schoen, Frederic L...5717 S. Anthony Blvd. (06)
Schoenhals, Charles E.....5431 Vance Ave. (05)
Schubert, Jerome C.....2154 Fairfield Ave. (04)
Scott, H. Vaughn.....801 E. State Blvd. (05)
Scudder, James P.....3124 E. State Blvd. (05)
Senseny, Eugene F.....2902 Fairfield Ave. (07)
Shaw, James E.....3610 Brooklyn Ave. (07)
Shinabery, Lawerence
Three Rivers North, Suite 212 (02)
Short, John T. (S).....2908 Shawnee Dr. (07)
Shugart, Robert R.....2609 Fairfield Ave. (07)
Singer, Elmer C. (S)
310 Medical Center Bldg. (02)
Sirlin, Edward M.....2615 Trier Rd. (05)
Smith, C. Curtis....3408 N. Anthony Blvd. (05)
Smith, Philip L.....2902 Fairfield Ave. (07)
Smith, Roger C.....3124 E. State Blvd. (05)
Snyderman, Sanford C.
102 Medical Center Bldg. (02)
Somers, Gerald H.....3610 Brooklyn Ave. (07)
Spencer, C. Herbert
Three Rivers North, Suite 105 (02)
Stanley, Robert G.....3415 S. Fairfield Ave. (07)
Stauffer, Richard C.....2730 E. State Blvd. (05)
Steigmeyer, David J.....3124 E. State Blvd. (05)
Stier, Paul L.....721 Broadway (02)
Stucky, Jerry L.....5010 Riviera Court (05)
Sullivan, Robert E.
Three Rivers North, Suite 106 (02)
Swearingen, A. G.....2802 E. State Blvd. (05)

T

Taylor, Robert G.....2902 Fairfield Ave. (07)
Tennant, David L.....1417 N. Anthony Blvd. (05)
Terrill, Richard W.....446 W. Pontiac St. (07)
Tomusk, August N.
Three Rivers East, Suite 104 (02)
Towles, Jeff H.....2709 S. Hanna St. (06)
Trier, Herbert P...612 Medical Center Bldg. (02)

U

Ungemach, Willo F.....3009 Fairfield Ave. (07)

V-W

Vogel, Lloyd A.
Three Rivers North, Suite 105 (02)
Voorhees, Robert J.
Three Rivers North, Suite 106 (02)
Walker, Floyd B.....3505 S. Monroe (06)
Wallace, Collins R..234 Medical Center Bldg. (02)
Walsh, John H.....2902 Fairfield Ave. (07)
Ward, Gerald F.....3124 E. State Blvd. (05)
Warfield, Chester H...7024 Forest Wood Dr. (05)
Weber, John R.....710 W. Wayne St. (04)
Wick, Alfred A.....623 Medical Center Bldg. (02)
Wierzalis, Edward F.....2017 Sherman St. (08)
Williams, Berniece M.....801 E. State Blvd. (05)
Wilson, Roland B.....1207 S. Lafayette (02)
Wright, William C. (S)
621 Medical Center Bldg. (02)
Wyatt, James L., III....2201 S. Calhoun St. (04)

X-Y-Z

Zehr, Noah (S).....301 W. Creighton (07)
Zweig, Elmer Sam.....344 W. Berry St. (02)

Harshman, Louis P. (S).....R. R. 6, Frankfort (46041)
Harvey, Harry C. (S)..Methodist Home, Franklin (46131)
Emme, Richard W.....Harlan (46743)
Harless, O. Fred.....104 Summit, Monroeville (46773)

New Haven

(*Zip Code* 46774)

Dahling, Clemens W.....Dahling Bldg.
Dahling, Fred W.....Dahling Bldg.
Hoetzer, Eldore M.....502 Henry
Sidell, James P.....1208 Lincoln Highway E.
Stumpf, Edwin E.....716 Broadway
Wade, Reynolds W.....1018 Bell Ave.

Miller, Kenneth D.....Woodburn (46797)

Humphreys, John L.....1300 Queens Rd., Apt. 214, Charlotte, N. Carolina (28207)
Kauffman, Paul E.
Medical Arts Bldg., Hesston, Kans. (67062)
Miller, Edward D.
3575 Westbury Rd., Birmingham, Ala. (35223)
Prentiss, Nelson H...V. A. Hospital, Oteen, N. C. (28805)
Rockey, Noah A. (S).....2539 N.E. 26th Terrace, Ft. Lauderdale, Fla. (33305)
Sherwood, Clarence E.
R. R. #2, Box 97A, Madison, S. Dakota (57042)
Sherwood, J. Vincent
229 Shangri-La, Largo, Fla. (33540)
Worley, Ansel C. (S)
560 N.W. 72nd Ave., Ft. Lauderdale, Fla. (33313)

BARTHOLOMEW-BROWN COUNTIES

Columbus

(*Zip Code* 47201)

Able, Walter.....2760 25th St.
Adler, David L.....Bartholomew County Hospital
Andrews, Fred B.....Doctors' Park
Beggs, Lowell F.....832 Washington St.
Clay, Eleanor.....2739 Central Ave.
Daugherty, Forest D.....2600 Sandcrest Blvd.
Davis, Marvin R.....908 Washington
Dugan, Thomas.....Doctors' Park
Echsner, Herman J.....Doctors' Park
Fisher, Walter S. (S).....422 Ninth St.
Fortner, Ray E.....Doctors' Park
Fuller, Robert G.....Doctors' Park
Gammell, Lindley L.....602 22nd St.
Hart, Robert B.....712 Washington St.
Hauersperger, Alfred D.....2760 25th St.
Hawes, Marvin E.....522 Seventh Ave.
Henry, Alvin L.....Doctors' Park
Holden, Robert W.....2438 Cottage Ave.
Jacobs, E. Robert.....1829 California St.
Knotts, Halleck S.....1813 25th St.
Krueger, Robert B.....2739 Central Ave.
Libbert, Edwin L.....3377 Woodland Pl.
McCullough, Henry G...R. R. #4, Old Indpls. Rd.

Macy, George W.....2760 25th St.
Marr, Griffith.....R. R. #1
Mohler, Floyd W.....2739 Central Ave.
Norton, Harold J.....909 Pearl St.
O'Bryan, Richard B.....2739 Central Ave.
Overshiner, Lyman (S).....1817 Seventh St.
Ranck, Benjamin A.....2600 Sandcrest Blvd.
Rau, Charles A.....2600 Sandcrest Blvd.
Reid, Robert M.....2225 Central Ave.
Richmond, Harold W...Cummins Engine Co., Inc.
Ryan, C. David.....2600 Sandcrest Blvd.
Ryan, William J.....Doctors' Park
Sandlin, Donald L.....2530 Sandcrest Blvd.
Schmitt, Richard K.....423 Ninth St.
Schneider, Kenneth D.....2760 25th St.
Sigmund, William B.....2355 Central Ave.
Snapp, Richard A.....2225 Central Ave.
Stribling, James L.....2600 Sandcrest Blvd.
Teal, Dorothy D. (S).....728 Franklin St.
Warshaw, Seymour.....2760 25th St.
Weinland, George C.....R. R. 5, Harrison Lake
Weisenberger, Brockton L...3305 Woodland Pkwy.
Wickstrom, Otto W., Jr.....2781 National Rd.
Wickstrom, Otto W.....2779 National Rd.
Wigh, Russell.....2400 E. 17th St.
Williams, Everett W.....2225 Central Ave.
Zaring, Bryon K.....2760 25th St.

Seibel, Robert M.....Nashville (47448)
Thurston, Floyd E.....Nashville (47448)

BENTON COUNTY

Leak, Robert H.....Boswell (47921)
Coddens, Avery L.....Earl Park (47942)
Altier, William H.
1721 Hemlock Rd., Lafayette (47904)
Miller, Dan T. (S).....Fowler (47944)
Turley, Verne L. (S).....Fowler (47944)
McKinney, Donald L.....Otterbein (47970)
Stolz, Thomas J...R. R. 1, West Lafayette (47906)
Byrn, Howard W. (S).....Oxford (47971)
Schuerich, Virgil.....Oxford (47971)

BLACKFORD COUNTY

(See Delaware-Blackford)

BOONE COUNTY

Schaaf, Alvin D.....Jamestown (46147)

Lebanon
(*Zip Code* 46052)

Bennett, Kent B.....1720 N. Lebanon St.
Boyer, Don W.....1600 N. Lebanon St.
Coons, John D. (S)....Boone County Bank Bldg.
Coons, Ritchie.....303 W. Washington St.
Honan, Paul R.....1720 N. Lebanon St.
Kern, Clarence G.....1720 N. Lebanon St.
Lenox, Jack.....205 East Dr.
McAfee, James R.....1608 N. Lebanon St.
Mukhtar, Fuad A.....1600 N. Lebanon St.
Perkins, Thornton D.....1202 N. Lebanon St.
Porter, Jack.....1122 N. Lebanon St.
Weddle, Charles O.....905 N. Lebanon St.
Wiseheart, Robert H.....905 N. Lebanon St.

Bassett, Margaret A.....Thorntown (46071)
Gregg, Edwin E.....Thorntown (46071)
Bailey, Lawrence S.....Zionsville (46077)
Harvey, Ralph J. (S).....Zionsville (46077)
Jackson, Kathryn A.....Zionsville (46077)
Lovett, Harvey D.....Zionsville (46077)
Messinger, Alan J.....Zionsville (46077)

BROWN COUNTY

(See Bartholomew-Brown)

CARROLL COUNTY

Wagoner, Don J.....Burlington (46915)
Wagoner, Marilyn L.....Burlington (46915)
Wise, Charles L.....Camden (46917)

Delphi
(*Zip Code* 46923)

Baker, Eldon E.....110 S. Union St.
Petry, T. Neal.....110 S. Union St.
Seese, Robert M.....101 W. North St.
Wagoner, George W.....Front & Union Sts.

Amaya, Carlos E.....Flora (46929)
Adams, Max R.
303 Harding St., Apt. F, Greenfield (46140)

CASS COUNTY

Logansport
(*Zip Code* 46947)

Bailey, Earl W.....212 Fifth St.
Bean, Joseph S.....Memorial Hospital
Burnett, Paul C.....Logansport State Hosp.
Cheng, Sylvia F.....Logansport State Hosp
Chu, Johnson C.S.....Logansport State Hosp.
Dian, August J.....Logansport State Hosp.
Eckert, Russell A.....1101 Michigan Ave.
Glendening, Richard L.....420-A High St.
Hall, Bernard R.....422 High St.
Hedde, Eugene L.....211 S. Third St.
Hillis, Lowell J.....718 E. Broadway
Hochhalter, Marian.....2400 Hasty Hyll
Horning, Richard R.....Logansport State Hosp.
Jones, J. Carl.....422 North St.
Karnafel, Eugene T.....Logansport State Hosp.
Maschmeyer, Robert H.....Logansport State Hosp.
Morrical, Russell J.....212 Fifth St.
Parker, E. Camille.....2500 E. Broadway
Parker, Francis W., Jr.....2500 E. Broadway
Pfuetze, Max E.....408 North St.
Phipps, Elwood B.....Logansport State Hosp.
Sheller, Tom G.....Logansport State Hosp.
Teaboldt, George A., Jr....Logansport State Hosp.
TerBush, Edward L.....216 Ninth St.
Viney, Charles L.....402 North St.
Wilson, Paul H.....422 North St.
Winter, Donald K.....422 North St.

Newcomb, William K.....Royal Center (46978)

CLARK COUNTY

Charlestown
(*Zip Code* 47111)

Goodman, Eli.....807 High St.
Shina, Hassi.....Charlestown Landing Rd.
Voskuhl, William L.....395 Water St.

Clarksville
(*Zip Code* 47131)

Duque, Fausto.....647 Eastern Blvd.
Mudd, Joseph P.....815 Eastern Blvd.
Willner, Alan.....630 Eastern Blvd.
Wolverton, George M.....647 Eastern Blvd.

Carr, Joseph H.....Henryville (47126)
Greene, William R.....Henryville (47126)

Jeffersonville

(*Zip Code* 47130)

Adair, Samuel L.....201 E. Market St.
Baldwin, John H. (S).....P.O. Box 161
Bizer, Mier A.....1206 N. Spring St.
Brill, Joseph B.....201 E. Market St.
Buehler, George M.....431 Locust St.
Byrd, Ryland P.....210 Sparks Ave.
Carlberg, Dale L.....226 E. Maple St.
Carney, Joel T. (S).....347 Spring St.
Clark, William B., Jr.....435 Spring St.
Corrao, Thomas J.....435 Spring St.
Ely, Cecil W.....Clark County Hospital
Forsee, Norman E.....211 E. Market St.
Golden, William Y.....437 Spring St.
Hargett, Herbert P.....435 Spring St.
Havens, A. Lyle.....432 Wall St.
Havens, Thomas R.....432 Wall St.
Horlander, Fridolin.....Gateway Plaza
Huoni, John S...1405 Youngstown Shopping Center
Isler, Nathaniel C.....519 Spring St.
Johnson, Jerome M.....1428 E. 10th St.
McKechnie, Robert K.....432 Wall St.
Oca, Clemente F.....220 Wall St.
Reed, Edsel S.....Clark County Hospital
Reeder, Henry H. (S).....140 N. High St.
Roby, Alma L.....201 E. Market St.
Shaw, Houston W.....435 Spring St.
Thompson, Walter T... ....1403 Youngstown Dr.
Weems, Mallory P.....414 Wall St.
Witt, William R.....201 E. Market St.

Sellersburg

(*Zip Code* 47172)

Meyer, Claude J.....119 S. Indiana Ave.
Regan, George L.....115 N. Indiana Ave.
Sturgis, Donald G.....117 S. Indiana Ave.

CLAY COUNTY

Brazil

(*Zip Code* 47834)

Conrad, Everett L.....1207 National Ave.
Farid, Rahim S.....111 N. Walnut St.
Froderman, Stanley E.....1207 National Ave.
Garvin, Donald B.....111 N. Walnut St.
Maurer, J. Frank.....111 N. Walnut St.
Maurer, Robert M.....111 N. Walnut St.
Mehne, Richard G.....3½ E. National Rd.
Shattuck, John C.....1½ E. National Ave.
Webster, Robert K.....28 N. Franklin St.
Wood, Opal L.....111 N. Walnut St.

Moon, Charles E.....Center Point (47840)
Bond, Walter C. (S).....Clay City (47841)
Buell, Forrest R.....Clay City (47841)
Advincula, Luis.....Box 76, Greencastle (46135)

CLINTON COUNTY

Frankfort

(*Zip Code* 46041)

Applegate, Albert E.....1303 S. Jackson St.
Beardsley, Frank A., Jr.....400 Kentwood Dr.
Carrel, Francis E.....209 S. Columbia St.
Dupler, Lee F.....4 E. White St.
Dykhuizen, Theodore A.....201 W. Walnut St.
Erdel, Milton W.....2 E. White St.
Flora, Fred W.....1256 S. Jackson St.
Hammersley, George K.....361 E. Clinton St.
Hedgcock, Robert A.....259 E. Clinton St.
Stout, Harry T.....1256 S. Jackson St.
Van Kirk, Paul P.....1252 S. Jackson St.
Williams, Earl K.....Clinton County Hospital
Work, Bruce A.....306 Peoples Life Bldg.

Bush, Charles E.....Kirklin (46050)
Carlyle, Ivan E. (S).....Michigantown (46057)
Ketcham, John S. (S).....Rossville (46065)
Weller, Ralph D.....Rossville (46065)

Work, Bruce A., Jr.
3092 Williamsburg Rd., Ann Arbor, Mich. (48103)

CRAWFORD COUNTY

(See Harrison-Crawford)

DAVIESS-MARTIN COUNTIES

Pierce, William J.....Bruceville (47516)
Rohrer, James R.....Elnora (47529)

Loogootee

(*Zip Code* 47553)

Chattin, Robert E.....304 N.E. Second St.
Lett, Emory B.....408 E. Main

Sears, Don A.....Odon (47562)

Washington

(*Zip Code* 47501)

Barrett, James W. .....1312 Bedford Rd.
Blazey, Arthur G.....7 E. Walnut St.
Chattin, Vance J.....511 E. Main St.
Farmer, Charles R.....200 E. Main St.
Farris, John J.....514 E. Main St.
Lindsay, Hamlin B.....511 E. Main St.
McKittrick, Jack.....Peoples Bank Bldg.
McNaughton, Lawrence M.....400 E. Hefron St.
Norton, Horace O.....511 E. Hefron St.
Rang, Arthur A. (S).....211 N.E. Ninth St.
Rang, Robert H.....1312 Bedford Rd.
Ross, Glenn E.....1307 Bedford Rd.
Schafer, William C.....1312 Bedford Rd.
Schroeder, Henry R., Jr.....101 N.E. First St.
Seat, Marshall H.....2 E. Walnut St.

DEARBORN-OHIO COUNTIES

Aurora

(*Zip Code* 47001)

Baker, Leslie M.....501 Fourth St.
Jackson, John K.....223 Mechanic St.
Olcott, Charles W.....203 Main St.
Treon, James F. (S).....505 Fifth St.

McNeely, Matthew J.....Box 35, Dillsboro (47018)

Lawrenceburg

(*Zip Code* 47025)

Bowen, Gerald T.....209 Fourth St.
Conrad, Henry W.....370 Bielby Rd.
Frable, Frank L., Jr.....370 Bielby Rd.
Houston, Fred D.....30 W. High St.

Hunter, Lowell G.....370 Bielby Rd.
Morrison, George G., Jr.....209 Fourth Ave.
Pfeifer, James M.....319 Front St.
Rhodes, Alfred K.....370 Bielby Rd.
Scudder, Gary E.....370 Bielby Rd.
Streck, Francis A.....326 Walnut St.

Fessler, Gordon S.....311 Main St., Rising Sun (47040)
Mauricio, Amado S. A. ...226 Main St., Rising Sun (47040)

DECATUR COUNTY

Greensburg

(*Zip Code* 47240)

Acher, Robert P.....221 E. Washington St.
Callaghan, Winship C.....304 Bates Bldg.
Dickson, Dale D.....333 E. First St.
Domingo, Ricardo C.....Bates Bldg.
Ducanes, Arnold D.....215 N. Franklin St.
Miller, James C.....317 N. Franklin St.
Morrison, James T.....207 N. Franklin St.
Paje, Alfredo Q.....Murphy Bldg.
Shaffer, William.....214 N. Franklin St.

Porter, Edward A. (S).....Westport (47283)

DE KALB COUNTY

Auburn

(*Zip Code* 46706)

Covell, Harry M.....127 W. Seventh St.
Geisinger, Lewis N. (S).....805 S. Indiana Ave.
Harvey, John C.....405 S. Main St.
Hathaway, C. Bishop.....209 N. Jackson St.
Hines, Archie V. (S).....401 S. Main St.
Hines, John H.....403 Main St.
Hippensteel, Harland V.....208 W. Seventh St.
Nugen, Harold.....223 W. Seventh St.
Rogers, Evered E.....212 W. Sixth St.
Sanders, Jesse A. (S).....1007 S. Main St.
Souder, Bonnell M. (S).....206 W. Seventh St.
Wills, Max.....347 W. Seventh St.

Shultz, Clifford.....Butler (46721)
Weirich, Charles I.....Butler (46721)

Garrett

(*Zip Code* 46738)

Carpenter, Ramesh S.....410 W. Houston
Jinnings, Loren E.....200 S. Randolph St.
Kantzer, Floyd B. (S).....200 S. Randolph St.
Nason, Robert A.....123 E. King St.
Novy, Charles A.....105 N. Randolph St.

Coleman, Floyd B.....Waterloo (46793)
Graber, Benjamin R. .....Waterloo (46793)
Hughes, William B.....Waterloo (46793)

DELAWARE-BLACKFORD COUNTIES

Brown, Stewart D.....Albany (47320)
Puterbaugh, Karl E. (S).....Albany (47320)
Hurley, John R.....Daleville (47334)
Weisner, Richard M.....R.R. 1, Eaton (47338)
Ko, Richard C. B.....Gaston (47342)

Hartford City

(*Zip Code* 47348)

Dodds, James U.....227 W. Main St.
Dudgeon, Charles A.....720 N. Spring St.
Jackson, Dean B.....401 W. Washington St.
Owsley, Guy A.....214 N. High St.
Parks, George O.....720 N. Spring St.
Sulit, Severino T.....214 N. High St.
Weldy, Bryce P.....227 W. Franklin St.
Werry, Leslie E. (S).....1223 N. High St.

Egger, Ross L.....613 N. 10th St., Middletown (47356)
Burns, Paul E.....119 W. High St., Montpelier (47359)
Ingram, Richard
206 S. Main St., Montpelier (47359)

Muncie

(*Zip Code* 473 *plus zone number*)

Adams, Julia L.....Ball State University (06)
Adams, William B.....2810 Ethel Ave. (04)
Alexander, Jack L.....Norwood Office Ct. (04)
Ashburn, Clarence M.....2810 Ethel Ave. (04)
Ball, Clay A. (S).....303 W. Adams St. (05)
Ball, Philip.....2600 W. Jackson St. (03)
Benken, Lawrence D.....1111 W. Jackson St. (05)
Bergwall, Warren L.....2923 W. Jackson St. (04)
Bibler, Henry E.....311 W. Adams St. (05)
Botkin, Charles L. (S)..508 W. Jackson St. (05)
Botkin, Charles T.....400 White River Blvd. (03)
Botkin, Clyde G.....508 W. Jackson St. (05)
Branam, George E.....38 Warwick Rd. (04)
Brown, Leland G.....412 White River Blvd. (03)
Brown, Thomas M.....212 N. Pauline Ave. (03)
Burwell, Stanley W.....424 W. Jackson St. (05)
Butz, Ralph O.....1525 W. Jackson St. (03)
Clark, Lintner E.....420 W. Washington St. (05)
Clark, Robert M.....2809 Godman Ave. (04)
Cochran, Robert B.....1111 W. Jackson St. (05)
Cooper, John F.....3022 S. Madison (02)
Covalt, Wendell E.....2724 W. North St. (03)
Cullison, John L.....2724 W. North St. (03)
Cure, Elmer T.....217 S. Cherry St. (05)
David, George J.....2200 Janney Ave. (04)
Deutsch, William....406 White River Blvd. (03)
Dietz, David J.....2810 Ethel Ave. (04)
Dunning, Thomas W.....1600 W. McGalliard (04)
Dutchman, William R.....2810 Ethel Ave. (04)
Fiederlein, Frederick J...2809 Godman Ave. (04)
Galliher, Marjorie J...410 White River Blvd. (03)
Geckler, Charles E.
203 Western Reserve Bldg. (05)
Gibson, Robert K.....806 W. Jackson St. (05)
Goodell, Charles L.....2810 Ethel Ave. (04)
Greiber, Marvin F...420 W. Washington St. (05)
Gustafson, Milton H...2606 W. Jackson St. (03)
Hall, Robert S.....1604 W. McGallaird (04)
Hayes, Theodore R.....210 S. High St. (05)
Henderson, Ramon A.....806 W. Jackson St. (05)
High, Ralph L.....420 W. Washington St. (05)
Holmes, John L.....412 White River Blvd. (03)
Hostetter, Irwin S.....115 N. Cherry St. (05)
Imhof, Joseph D.....320 W. Adams St. (05)
Kalker, Morton.....2810 Ethel Ave. (04)
Kammer, Grace C.....1005 W. Parkway Dr. (04)
Kammer, Walter F...420 W. Washington St. (05)
Kirshman, Forrest E.....211 S. High St. (05)
Koch, Edwin F., Jr...Ball Memorial Hospital (03)
Koss, K. William.....1600 W. Jackson St. (03)
Kress, James W.....2809 Godman Ave. (04)
LaDuron, Jules F. (S)....614 S. Liberty St. (05)
Lawson, Lawrence J.....110 N. Cherry St. (05)
McCallister, Larry L.....2518 Rosewood (04)
McClintock, James A.....316 W. Adams St. (05)
McDowell, Fletcher W.....926 W. Main St. (05)
Mathewson, Russell C...Box 157, Benton Rd. (02)

Montgomery, Lall G..Ball Memorial Hospital (03)
Montgomery, Ralph F...2809 Godman Ave. (04)
Moore, Jack C.....212 N. Pauline Ave. (03)
Moore, William C. (S)....110 N. Cherry St. (05)
Morris, Jean W.....247 Johnson Bldg. (05)
Nelson, Harold E.....424 W. Jackson St. (05)
Newnam, Philip E..420 W. Washington St. (05)
Osborne, John V.....420 W. Washington St. (05)
Owsley, William....Ball Memorial Hospital (03)
Peacock, Robert C.....2724 W. North St. (03)
Philbert, Richard N.....2810 Ethel Ave. (04)
Pippenger, Joseph I.....310 W. Jackson St. (05)
Pippenger, Wayne G...Ball State University (06)
Quick, William J.....314 E. Washington St. (05)
Rittmeyer, Jack L...420 W. Washington St. (05)
Rivers, Glynn A.....625 W. Adams St. (05)
Schmidt, Robert B.....Ball State University (06)
Schulhof, Maurice G..420 W. Washington St. (05)
Searight, Howard R.....402 W. Jackson St. (05)
Speck, Carlson R...Ball Memorial Hospital (03)
Stanley, John R.....1111 W. Jackson St. (05)
Stout, Francis E.....2423 W. Jackson St. (03)
Stump, Richard L.....2000 S. Madison (02)
Taylor, Donald R...Ball Memorial Hospital (03)
Tharp, Donald W.....402 W. Jackson St. (05)
Tomlin, Hugh M.....420 W. Washington St. (05)
Vlaskamp, Elaine.....500 W. Charles St. (05)
Voss, Gert.....420 W. Washington St. (05)
Walker, Jack M.....412 White River Blvd. (03)
Wince, Leland L.....806 W. Jackson St. (05)
Yarling, John L.....1705 W. North St. (03)
Young, Gerald S.....924 W. Main St. (05)

Hinchman, Jean F.....Parker (47368)
Hill, Robert E.....Yorktown (47396)
Moss, Mavor J.....Yorktown (47396)

Bartley, Stan L.
2171 O'Hare Dr., Glenview, Ill. (60025)
Rivers, Thomas A.....1402 10th Ave., S.E., Apt. 1, Rochester, Minn. (55901)

Weybright, William L.
Mission Hospital, Dahanu Rd., Thana District, Maharashtra State, India

DUBOIS COUNTY

Barrow, John H.....Dale (47523)
Backer, Henry G.....Ferdinand (47532)
Bland, Jack D.....Holland (47541)
Leon, Mario.....Holland (47541)

Huntingburg

(*Zip Code* 47542)

Bretz, John M.....302 Fourth St.
Craig, Harry L.....409 Van Buren
Erhart, Herbert G.....409 Van Buren
Scales, Alfred B.....409 Van Buren
Scales, Allen D.....409 Van Buren
Stork, Harvey K.....509 Fourth St.
Williams, Fielding P.....215 W. Walnut St.

Jasper

(*Zip Code* 47546)

Beaven, John B.....111 Central Bldg.
Gootee, Francis H.....501 Clay St.
Gootee, Thomas H.....501 Clay St.
Heck, Martin C.....801 Newton
Held, George A.....716 W. Ninth St.
Klamer, Charles H.....715 MacArthur St.
Lukemeyer, St. John (S).....109 W. 12th St.
Ploetner, Edward J.....111-115 Central Bldg.
Salb, John P.....106 Metzger Bldg.
Salb, Leo A. (S).....301 E. Sixth St.
Wagner, Arthur L.....115 E. Ninth St.

ELKHART COUNTY

Horswell, Richard G.....Bristol (46507)
Neidballa, Edward G.....Bristol (46507)

Elkhart

(*Zip Code* 46514)

Arlook, Theodore D.....912 W. Franklin St.
Atwood, William H.....405 S. Second St.
Bender, Robert L.....411 S. Third St.
Benson, James E.....405 S. Second St.
Billings, Elmer R.....405 S. Second St.
Bloom, George R.....Simpson & Superior Sts.
Boling, Richard C.....214 W. Marion St.
Bowdoin, George E. (S).....515 S. Second St.
Campbell, Patrick B.....605 Oakland Ave.
Cassim, Rechad M.....405 S. Second St.
Classen, Pete R. C.....4112 S. Main St.
Compton, Walter A.....2225 Greenleaf Blvd.
Conklin, Raymond L. (S)....Ames Company, Inc.
Cormican, Herbert L.....1400 Hudson St.
Dovey, Edward G.....513 Oakland Ave.
Durham, Thomas E.....405 S. Second St.
Echeverria, Rodolfo E.....405 S. Second St.
Elliott, Thomas A.....405 S. Second St.
Fear, Olan D.....405 S. Second St.
Finfrock, James D.....515 S. Second St.
Futterknecht, James O.....405 S. Second St.
Gattman, George B.....405 S. Second St.
Graber, Virgil R.....1400 Hudson St.
Gray, Edwin H.....518 W. Franklin St.
Gray, Mary Case.....518 W. Franklin St.
Hannah, Jack W.....1906 E. Jackson Blvd.
Harrell, Ronald R.....R. R. #5
Heiser, Ervin W.....1400 Hudson St.
Heminway, Norman L...1700 Rainbow Bend Blvd.
Hurley, James W.....405 S. Second St.
Ivy, John H.....405 S. Second St.
Jones, Robert B.....1528 W. Franklin
Kesim, Mufit H.....317 W. Lusher Ave.
Kielton, Melvyn J.....319 W. Lusher Ave.
Kintner, Burton E.....Simpson & Superior Sts.
Kistner, Arthur W.....400 Equity Bldg.
Klassen, Otto D.....2600 Oakland Ave.
Koehler, Elmer G.....416 W. Lexington Ave.
Krause, Frederick.....4117 S. Main St.
Lundt, Milo O.....521 S. Second St.
Luther, William C.....Ames Company, Inc.
Mark, George A.....814 W. Marion St.
Martin, Paul H.....313 N. Second St.
Middleton, Ramona J.....1400 Hudson St.
Miller, Galen R.....403 S. Ninth St.
Miller, Hugh A., Jr.....1127 Myrtle St.
Miller, Samuel T. (S).....506 S. Second St.
Mininger, Edward P.....1400 Hudson St.
Mishkin, Irving.....209 S. Second St.
O'Donovan, Cornelius J.....1127 Myrtle St.
Paff, William A.....115 S. Third St.
Paine, George E.....329 Meisner Ave.
Pancost, Vernon K.....1000 W. Marion St.
Parshall, Dale B.....3528 Gordon Rd.
Pletcher, William D.....405 S. Second St.
Price, Robert W.....2600 Oakland Ave.
Rouen, Robert L.....1209 Harrison St.

Rupe, Lloyd O.....211 S. Fifth St.
Rupel, Dennis F.....2600 Oakland Ave.
Scheer, Alexander L.....405 S. Second St.
Schlosser, Herbert C. (S).....116 W. Marion St.
Spray, Page E.....320 W. High St.
Stubbins, William M.....1006 W. Franklin St.
Swank, Lucretia R.....1600 E. Jackson Blvd.
Swihart, Danny D.....Simpson & Superior Sts.
Swihart, Homer R.....1200 W. Marion St.
Whitlock, Coleman M., Jr.....Ames Company, Inc.
Wilson, Orley E.....217 N. Main St.
Yoder, C. Richard.....603 Oakland Ave.
Zeitler, Philip S.....1400 Hudson St.

Goshen

(*Zip Code* 46526)

Bender, John M.....112 W. High Park Ave.
Bigler, Frederick W.....314 S. Fifth St.
Bowser, Philip G.....107 S. Fifth St.
Chandler, Leon H.....112 E. Lincoln Ave.
Gunderson, Shaun D.....Goshen General Hospital
Harris, Neil R.....307 S. Seventh St.
Kennedy, Myron S.....314 S. Fifth St.
Krabill, Willard S.....110 W. High Park Ave.
Martin, Floyd S.....127 E. Lincoln St.
Minter, Donald L.....110 W. High Park Ave.
Quilty, Thomas J.....112 E. Madison St.
Smucker, Ernest E.....112 S. Fifth St.
Troyer, Dana O.....201 E. Clinton St.
Troyer, George W.....110 W. High Park Ave.
Turner, John P.....115 E. Washington St.
Wagner, David G.....307 S. Seventh St.
Westfall, George S.....304 E. Lincoln Ave.
Young, Ralph H.....113 E. Madison St.

Keating, John U.
3000 W. Washington St., Indianapolis (46222)
Gill, Dee D.....Leesburg (46538)
Teters, Melvin S. (S).....Middlebury (46540)
Yoder, Carl J.....Middlebury (46540)
Yoder, Jonathan G.....Middlebury (46540)
Rheinheimer, Floyd L.....Milford (46542)
Massanari, Walter S.....Millersburg (46543)

Nappanee

(*Zip Code* 46550)

Graber, Alvin R.....357 N. Nappanee St.
Kendall, Forest M.....219 W. Market St.
Price, Douglas W.....162 E. Market St.
Roose, Lisle W.....357 N. Nappanee St.
Wenger, James E.....357 N. Nappanee St.

DeFries, John J.....New Paris (46553)
Gorham, Charles E.....New Paris (46553)

Clark, Jack P.....303 S. Hunnington, Syracuse (46567)
Craig, Robert A.....P. O. Box 607, Syracuse (46567)
Fosbrink, Ephraim L...107 E. Main St., Syracuse (46567)
Zimmerman, William H.....R. R. No. 2, Syracuse (46567)

Guttman, John B.....Wakarusa (46573)
Miller, James.....Wakarusa (46573)

Todd, David D. (S)
5835 Beaumont Ave., La Jolla, Calif. (92037)

FAYETTE-FRANKLIN COUNTIES

Brookville

(*Zip Code* 47012)

Peters, Elmer E.....830 Main St.
Seal, Perry F.....901 Main St.

Connersville

(*Zip Code* 47331)

Ellis, George M.....108 E. 10th St.
Gregg, Albert F.....124 E. Sixth St.
Hudson, Arlington M.....321 W. 20th St.
Janes, R. Grant.....1941 Virginia Ave.
Kerrigan, William F.....707 W. Third St.
Lockhart, Jack M.....707 W. Third St.
Mountain, Francis B.....930 Central Ave.
Neukamp, Frank H.....707 W. Third St.
Sanders, Bertram W.....634 Eastern Ave.
Steinem, Joseph L.....812 Grand Ave.
Watterson, Gerald T.....1910 Virginia Ave.
Winklepleck, A. M.....R. R. #6

FLOYD COUNTY

Allen, George S.....Georgetown (47122)
Boha, Rudolf L.....Borden (47106)
Sloan, Herbert P....Lincoln Heights, Jeffersonville (47130)

New Albany

(*Zip Code* 47150)

Baker, Avey M. (S).....811 E. Spring St.
Baxter, Samuel M. (S).....1201 E. Spring St.
Bickers, Everett E.....3541 Paoli Pike
Brown, Kenneth H.....410 E. Spring St.
Buchman, Marshall H.....1824 State St.
Cannon, Daniel H.....1203 E. Spring St.
Cook, Melvin D.....1919 State St.
Edwards, William F.....604 E. Spring St.
Garner, William H., Jr.....919 E. Spring St.
Garner, William H., Sr. (S).....919 E. Spring St.
Gentile, John P.....101 Adams St.
Hess, Paul P.....Floyd Co. Bank Bldg.
Higgins, John R.....700 E. Spring St.
Johnson, William V.....1850 State St.
LaFollette, Donald R.....1000 E. Spring St.
LaFollette, Robert E.....1000 E. Spring St.
McCullough, James Y.....700 E. Spring St.
May, William D.....Silvercrest Hospital
Nedelkoff, Bogdan.....R. R. 2, Box 500H
Paris, John M.....1919 State St.
Perdomo, Octavio J.....Silvercrest Hospital
Pierce, Gene S.....1696 Garretson Lane
Receveur, Robert.....2626 Charlestown Rd.
Robertson, Addis N. (S).....820 E. Spring St.
Robinson, Nan.....1726 State St.
Ruoff, William F.....1109 Lafayette Dr.
Shelton, Clyde F.....1726 State St.
Sonne, Irvin H., Jr.....1546 Sunset Dr.
Streepey, Jefferson I.....1919 State St.
Tyler, Frank T. (S).....420 Vincennes St.
Voyles, Harry E. (S).....213 Elsby Bldg.
Wallace, Elmer L.....1919 State St.
Wolfe, Morton F.....1919 State St.
Wolfe, Nelson A.....1919 State St.
Worley, Henry L.....601 E. Spring St.
Youngs, Paul E.....2652 Charlestown Rd.

FOUNTAIN-WARREN COUNTIES

Attica

(*Zip Code* 47918)

Maris, Lee J.....201 Brady St.
Petrich, Peter R.....401 S. Perry St.
Raymundo, Vivencio F.....401 S. Perry St.

Covington

(*Zip Code* 47932)

Hoffman, Max N.....416 Union St.
Stephens, Lowell R.....600 E. Liberty St.
Suzuki, Tsutomu T.....505 Washington St.

Furr, Jack D.....Kingman (47952)
Person, Theodore C.....Veedersburg (47987)
Rusk, Hubert M.....Wallace (47988)
Nelson, Carl A.....West Lebanon (47991)
Ringer, William A.....Williamsport (47993)

FULTON COUNTY

Herrick, Charles L.....Akron (46910)
Miller, Virgil C.....Akron (46910)
Kelsey, Lawrence E.....Kewanna (46939)
Kraning, Kenneth K.....Kewanna (46939)

Rochester

(*Zip Code* 46975)

Herendeen, Elbie V.....120 W. Ninth St.
Knochel, Wayne L.....819 E. Ninth St.
Richardson, Joseph D.....121 W. Eighth St.
Rowe, Howard H.....720 Jefferson St.
Stinson, Dean K.....816 Main St.
Stone, Grant C.....819 E. Ninth St.
Walton, F. Richard.....116 W. Ninth St.

GIBSON COUNTY

Geick, Raymond G.....Fort Branch (47533)
Marchand, Edwin V. (S).....Haubstadt (47539)
Petitjean, Harold G.....Haubstadt (47539)
Dye, William E.....Oakland City (47560)

Princeton

(*Zip Code* 47570)

Folck, John K.....115 N. Prince St.
Graves, Orville M. (S).....116 S. Hart St.
McCarty, Virgil.....113 S. Main St.
McElroy, Robert S.....116 S. Main St.
Noveroske, Richard J.....Gibson General Hospital
Peck, James F.....302 N. Prince St.
Weitzel, Roland E.....114 S. Hart St.
Wells, William R.....109 E. State St.

GRANT COUNTY

Shrock, Ethan E.....Amboy (46911)
Malott, Fred R.....Converse (46919)
Breedlove, C. Dane.....Fairmount (46928)
Yale, Charles A.....Fairmount (46928)
Love, V. Logan..1301 S. Harrison St., Fort Wayne (46802)
Garrison, Leon J..... 114 S. First St., Gas City (46933)
Koontz, William A.....126 E. Main St., Gas City (46933)
Shoemaker, Richard L. 212 E. North C St., Gas City (46933)
Baskett, Russell J.....Jonesboro (46938)

Marion

(*Zip Code* 46952)

Abell, Charles F.....500 Wabash Ave.
Alderfer, Henry H.....208 W. Fourth St.
Ansbacher, Stefan (H).....P.O. Box 149
Ayres, Wendell W.....500 Wabash Ave.
Bailey, Douglas A.....1251 Kem Rd.
Bloom, Asa W.....724 W. Third St.
Boyer, Grace M. B.....605 Locust St.
Brown, Robert M....520 Marion Nat'l Bank Bldg.
Comeau, William J.....Marion General Hosp.
Cunningham, Robert D.....500 Wabash Ave.
Davis, Joseph B.....131 N. Washington St.
Davis, Merrill S. (S).....131 N. Washington St.
Donaldson, Miles W.....2927 S. Washington St.
Dunbar, Fred E.....1251 Kem Rd.
Fisher, Henry.....1502 S. Washington St.
Fisher, Pierre J., Jr.....500 Wabash Ave.
Fuelling, James L.....131 N. Washington St.
Ganz, Max.....1251 Kem Rd.
Goldsmith, David A.....2711 River Rd.
Grant, M. Arthur.....P. O. Box 1088
Hummel, Russel M.....500 Wabash Ave.
Jarrett, John C.....208 W. Fourth St.
Kershner, Charles R.....500 Wabash Ave.
Khalouf, Herbert C.....131 N. Washington St.
Khalouf, Shirley T.....2036 Kem Rd.
Lahr, Richard E.....1121 W. Third St.
Larzelere, Henry B.....131 N. Washington St.
Lavengood, Russell W.....225 Glass Block
Long, Max R.....803 S. Boots St.
Lonngren, Dudley H.....131 N. Washington St.
McKeever, Joseph W.....131 N. Washington St.
Miller, H. Allison.....320 Glass Block
Munoz, Jose C.....131 N. Washington St.
Musselman, Lawrence K.....500 Wabash Ave.
Pattison, John D.....131 N. Washington St.
Pearcy, Marcene.....500 Wabash Ave.
Powell, J. Paxton.....500 Wabash Ave.
Reid, James D.....500 Wabash Ave.
Renbarger, Lester L.....1531 W. Second
Rhamy, Arthur P.....500 Wabash Ave.
Rhamy, Donald E.....500 Wabash Ave.
Rhorer, John G.....500 Wabash Ave.
Shuck, William A., Jr.....1251 Kem Rd.
Simmons, Frederick H.....1009 N. Baldwin
Skomp, Claud E.....500 Wabash Ave.
Smith, Barton T.....208 W. Fourth St.
Smith, Eurett E.....Marion General Hosp.
Snowhite, Arthur B.....500 Wabash Ave.
Thompson, B. Jay.....Marion General Hosp.
Thompson, Samuel R.....500 Wabash Ave.
Walton, R. Lee.....131 N. Washington St.
Warren, Carroll B.....511 Glass Block
Watkins, James K.....131 N. Washington St.
Weinberg, Samuel.....104 W. Third St.
Wilson, Ned A.....317 N. Western Ave.
Wojcik, Ladislas D.....131 N. Washington St.
Woodbury, John W.....131 N. Washington St.
Young, Robert G.....1207 Northwood Ct.

Taylor, Everett C.....Upland (46989)
Rifner, Eugene S.....Van Buren (46991)

GREENE COUNTY

Bloomfield

(*Zip Code* 47424)

Graf, Jerome A.....227 W. Mechanic St.
Lardizabal, Jose M.....55 N. Franklin St.
Mount, Mathias S.....55 N. Franklin St.
Turner, Harold B. (S).....126 E. Indiana Ave.

Jasonville

(*Zip Code* 47438)

Porter, Carl M.....124 Cook St.
Rotman, Harry G.....111½ E. Main St.
Rotman, Sam I.....P. O. Box 127

Linton

(*Zip Code* 47441)

Bailey, Edwin B.....129 E. Vincennes
Broshears, Kenneth P.....129 E. Vincennes
Raney, Ben B.....129 E. Vincennes
Tomak, Milton E.....289 N. Main St.
Woner, John W.....Linton

Moses, George E. (S).....Worthington (47471)
Moses, Robert E.....Worthington (47471)

HAMILTON COUNTY

Donahue, Claude M. (S).....Carmel (46032)
Thomas, W. Clayton.....Carmel (46032)
Havens, Oscar.....Cicero (46034)
Ayers, Marion E.....240 N. Meridian St., Indianapolis (46206)

Noblesville

(*Zip Code* 46060)

Ambrose, Jesse C.....298 N. Ninth St.
Blackburn, Howard R.....Riverview Hospital
Carter, Eunice M.....1084 Clinton St.
Harris, Robert F.....297 S. 10th St.
Hash, John S.....110 Lakeview
Haywood, John G.....120 N. 11th St.
Lanning, R. Adrian.....10th and North Dr.
Lloyd, Joe R.....107 John St.
Shanks, Ray W.....1507 Logan St.
Waitt, Paul M.....110 Lakeview

Griffith, James W. (S).....Sheridan (46069)
Manhart, Doyle B.....Sheridan (46069)
Newby, Eugene.....Sheridan (46069)
Connoy, Leo F.....Westfield (46074)

HANCOCK COUNTY

Scott, Robert O.....Charlottesville (46117)
Garrison, James L.....Cumberland (46229)
Navin, Hugh K.....Fortville (46040)
Rhynearson, Hal R.....Fortville (46040)

Greenfield

(*Zip Code* 46140)

Anderson, James T.....114 N. State St.
Beeson, Wilbur P.....1001 N. State St.
Endicott, Wayne H. ..... 10 W. Boyd St.
Farrell, John J., Jr.....1001 N. State St.
Henn, R. Anthony.....137 Michigan
Hunter, Donn R.....10 W. Boyd St.
Kinneman, Robert E.....1038 N. State St.
Kirby, Ted C.....1001 N. State St.
Pareja, Frank S.....18 Allen Lane
Rea, Ralph L.....114 N. State St.
Singco, Bienvenido O.....744 N. State St.
Smith, John H.....144 Grandison Rd.
Vingis, Bronie A.....746 N. State St.

Cagle, Bob R.....New Palestine (46163)
Pierson, Thomas A.....New Palestine (46163)
Arive, Floro F.....Oaklandon (46236)
Miller, Joseph A.....Oaklandon (46236)
Moenning, John E.....Oaklandon (46236)
Kuhn, Robert W.....Wilkinson (46186)

HARRISON-CRAWFORD COUNTIES

Corydon

(*Zip Code* 47112)

Blessinger, Louis H.....101 W. Chestnut St.
Brockman, Wilfred J.....439 E. Chestnut
Dillman, Carl E.....Beaver & Oak Sts.
Dukes, David J.....439 E. Chestnut St.
Jordan, Richard A.....Harrison Dr.
Martin, Samuel W.....R.R. 1

Baker, Guy D. (S).....Crandall (47114)
May, R. Milton.....Laconia (47135)
Seipel, Stanley.....Lanesville (47136)
Benz, Jesse C. (S).....Marengo (47140)

HENDRICKS COUNTY

Brownsburg

(*Zip Code* 46112)

Black, M. James.....702 E. Main St.
Scudder, Arthur N.....24 N. Grant St.
Walker, Thomas M.....702 E. Main St.

Danville

(*Zip Code* 46122)

Cheesman, Donald D.....637 E. Main St.
Heinlein, Carl L.....637 E. Main St.
Kerlin, Joseph C.....637 E. Main St.
Kirtley, Robert W.....138 W. Marion St.
Koch, Elmer L.....201 E. Columbia St.
Terry, Lloyd S.....138 W. Marion St.

Calhoon, John P.
Avon, Box 300C, R. R. 8, Indianapolis (46231)
Coats, Eli A.
Avon, Box 300C, R. R. 8, Indianapolis (46231)
Ellis, Lyman H.....Lizton (46149)
Gibbs, Joseph W.
Home Lawn Sanitarium, Martinsville (46151)
Scamahorn, Malcolm O.....Pittsboro (46167)

Plainfield

(*Zip Code* 46168)

Aiken, Milo M.....140 N. Center St.
Cohen, Irving.....645 E. Main St.
Haggard, David B.....P. O. Box 191
Stafford, William C.....P.O. Box 97
Warbinton, Fred P.....P. O. Box 337

HENRY COUNTY

Donahue, Francis E.....Dublin (47335)
Hollenberg, Alfred E.
700 N. Washington St., Hagerstown (47346)
Miller, William A. (S)
99 S. Washington, Hagerstown (47346)
Wiatt, Leonard H.....Knightstown (46148)
Stauffer, George E.....Mooreland (47360)

New Castle

(*Zip Code* 47362)

Amos, Robert L.....540 S. Main St.
Bledsoe, James G.....319 S. 14th St.
Brock, Joseph T.....New Castle State Hosp.
Burnett, Arthur B.....106 N. Main St.
Cain, David R.....1912 Bundy Ave.
Campbell, Sam W.....901 McCormack Dr.
Dye, Cloyd L.....1007 N. 16th St.
Easter, James N.....1912 Bundy Ave.
Fisher, John E.....540 S. Main St.
Foster, Ray T.....420 N. Main St.
Grant, Phyllis A.....3007 S. 14th St.
Harrison, Benjamin L.....540 S. Main St.
Heilman, William C., Jr.....1007 N. 16th St.
Heilman, William C. (S).....1007 N. 16th St.
Hill, Kenneth G.....530 S. Main St.
Iterman, George E. (S).....1007 N. 16th St.
Karaagac, Ishan A.....New Castle State Hosp.
Kennedy, Walter U. (S).....208 Union Block
KinKade, Paul T.....1015 Broad St.
Life, Homer L.....1015 Broad St.
May, A. J.....319 S. 14th St.
McDonald, Frank C.....365 Parkside Dr.
McElroy, James S.....1007 N. 16th St.
McKee, Roy G.....319 S. 14th St.
Morec, George J.....1007 N. 16th St.
Murray, William E.....New Castle State Hosp.
Reed, Donald W.....New Castle State Hosp.
Saint, William K.....540-B S. Main St.
Smith, Mark E.....1007 N. 16th St.
Steussy, Calvin N.....Henry Co. Hospital
Stricker, Paul J.....319 S. 14th St.
Vivian, Donald E.....Henry County Hospital
Wilhelm, Guido P.....1007 N. 16th St.

Robertson, William S.....Spiceland (47385)

HOWARD COUNTY

Denton, Larkin D.....Greentown (46936)

Kokomo

(*Zip Code* 46901)

Althoff, William R.....Chrysler Corporation
Alward, John H.....321 W. Walnut St.
Artis, Myrle E.....519½ N. Main St.
Ault, Carl H.....502 S. Berkley Rd.
Bowers, Copeland C.....210 W. Mulberry St.
Bowers, Garvey B.....210 W. Mulberry St.
Bowers, John A.....210 W. Mulberry St.
Bradley, Richard V.....3421 S. Lafountain
Brown, Richard J.....404 S. Berkley Rd.
Bruegge, Theodore J.....315 S. Berkley Rd.
Cattell, Lee M.....400 S. Berkley Rd.
Conley, Thomas M.....500 Southway Blvd., East
Craig, Reuben.....514 W. Superior St.
Crawford, Theodore R.....2114 W. Sycamore St.
Das, Amal K.....401 E. Reynolds Dr.
Doss, Jerome F.....3520 S. Lafountain
Earl, Max M.....502 S. Berkley Rd.
Elleman, John H.....416 W. Mulberry St.
Ericson, Homer S.....107 S. Dixon Rd.
Fields, Donald L.....3520 S. Lafountain
Frazier, John L.....3421 S. Lafountain
Fretz, Richard C.....2008 W. Sycamore St.
Golper, Marvin N.....1907 W. Sycamore St.
Good, Richard P.....400 S. Berkley Rd.
Grothouse, Carl B.....400 S. Berkley Rd.
Guin, Jere D.....400 S. Berkley Rd.
Halfast, Richard W.....400 S. Berkley Rd.
Harshman, James A.....St. Joseph Hospital
Harvey, Emerson C., Jr...Delco Radio Division
Higgins, Jack W.....400 S. Berkley Rd.
Hoyt, John M.....308 Taylor St.
Hutto, William H.....215 W. Superior St.
Jewell, George M....610 Armstrong-Landon Bldg.
Kremers, George A.....400 S. Berkley Rd.
Lehman, David P.....1907 W. Sycamore St.
Longshore, Robert E.....2016 W. Sycamore St.
McClure, Warren N.....319 S. Berkley Rd.
McIndoo, Ralph E. (S).....313 W. Taylor St.
Maxson, Roy V.....Howard Community Hosp.
Mendelson, Stanley M.....401 E. Reynolds Dr.
Michael, Robert L.....321 W. Walnut St.
Moore, John M.....3520 S. Lafountain
Murray, Ernest C.....408 W. Mulberry St.
Paris, Durward W...614 Armstrong-Landon Bldg.
Perkins, Powell L.....317 S. Berkley Rd.
Phares, Robert W.....1712 S. Malfalfa Rd.
Prather, Philip E.....909 S. Courtland
Quakenbush, John.....3421 S. Lafountain
Radpour, Shokri.....2004 W. Sycamore
Ramey, John W. (S).....107½ S. Union St.
Rinehart, James J.....401 E. Reynolds Dr.
Rudicel, Max.....1907 W. Sycamore St.
Scherschel, Thomas R.....317 S. Berkley Rd.
Schwartz, Frederick C.....2016 W. Sycamore
Sekulich, Milo.....St. Joseph Hospital
Smith, Charles F.....Howard Community Hosp.
Smith, Gloster J.....102½ S. Main St.
Spangler, Jesse S.....215 E. Taylor St.
Tate, James.....3520 S. Lafountain
Tignor, Sterling P.....401 E. Reynolds Dr.
Tofaute, John L.....402 S. Berkley Rd.
Trimble, John G.....116 S. Buckeye St.
Van Denbark, Howard M.....3520 S. Lafountain
Wachob, Tom W., Jr.....3520 S. Lafountain
Wilson, Norman K.....3421 S. Lafountain

Ware, John R.....Russiaville (46979)

HUNTINGTON COUNTY

(*Zip Code* 46750)

Huntington

Brubaker, Harold S.....42 W. Park Dr.
Casey, Stanley M. (S).....408 E. Market St.
Clunie, William A.....323 W. Park Dr.
Cope, Stanton E.....1022 N. Jefferson St.
Doermann, Paul E.....1775 N. Jefferson St.
Erehart, Mark G. (S)..Maple Grove Rd., R. R. 8
Eviston, John B. (S).....34 E. Washington St.
Gill, D. Richard.....1751 N. Jefferson St.
James, Thomas, Jr.....202 U. B. Publishing Bldg.
Johnston, Robert G. (S).....339 E. Market St.
Marks, Howard H.....248 W. Park Dr.
Meiser, Robert D.....612 N. Jefferson St.
Miller, Wayne S.....610 N. Jefferson St.
Peare, Reeve B.....1751 N. Jefferson St.
Wagner, Richard.....1355 Guilford
Wheeler, Barth E.....818 W. Park Dr.

Cooper, B. Trent.....Roanoke (46783)
Bennett, J. B.....Warren (46792)
McLaughlin, James R.....Warren (46792)
Ray, Carl S.....Warren (46792)

JACKSON-JENNINGS COUNTIES

Gillespie, Garland R.....Brownstown (47220)
Shields, Jack E.....Brownstown (47220)
Adair, William K. (S)
115 Armstrong, Crothersville (47229)
Bard, Frank B...305 E. Howard St., Crothersville (47229)
Scharbrough, William D.....Ewing (47233)
Templeton, Ian S.
7825 N. Sherman Dr., Indianapolis (46240)

North Vernon

(*Zip Code* 47265)

Calli, Louis J.....408 S. State St.
Ellis, Forrest D.....241 Norris Ave.
Johnson, William A.....245 Norris Ave.
Thayer, Benet W.....20 Jackson St.

Seymour

(*Zip Code* 47274)

Baxter, Harry R.....326 N. Walnut St.
Black, Joe M.....502 W. Second St.
Blaisdell, William F.....207 N. Pine St.
Bobb, Kenneth E.....410 S. Chestnut St.
Bosch, Ralph.....635 W. Second St.
Day, William D. C.....515 W. Sixth St.
Graessle, Harold P. (S).....304 W. Second St.
Knotts, Slater.....650 Greenway Ct.
Linson, John C.....324 W. Second St.
Miller, Harold E.....303 S. Walnut St.
Wiethoff, Clifford A.....214 N. Walnut St.

Guthrie, William H...Box 206, Versailles (47042)

JASPER COUNTY

Schantz, Richard.....Remington (47977)

Rensselaer

(*Zip Code* 47978)

Beaver, Ernest R.....111 Thompson St.
Greenberg, Harry L.....Box 244
Greene, Robert W.....116 N. Cullen
O'Brien, Francis E. McKinley and Washington Sts.
Ockermann, Kenneth R.....119 W. Harrison St.
Williams, Paul A.....119 W. Harrison St.

JAY COUNTY

Dunkirk

(*Zip Code* 47336)

Entner, Charles L.....226 S. Meridian St.
Shroyer, Herbert L.....244½ S. Main St.
Tate, Elizabeth..... 317 S. Main St.

Andrews, C. Franklin.....R. R. 1, Geneva (46740)
Donnally, George.....R. R. 1, Geneva (46740)
Rudolph, Rosser A.
1 Wiltshire Rd., Muncie (47304)

Portland

(*Zip Code* 47371)

Cripe, William H. .....302 N. Meridian St.
Fitzpatrick, James S.....603 W. Arch St.
Gillum, Eugene M.....522 W. Arch St.
Keeling, Forrest E. (S).....504 W. Arch St.
Lopez, Alfonso.....16 Weiler Bldg.
Lyon, Florence M.....127 E. North St.
Schenck, Ralph E.....603 W. Arch St.
Spahr, Donald E.....615 W. Race St.
Steffy, Ralph M.....504 W. Arch St.
Vormohr, Joseph F.....604 W. Arch St.

JEFFERSON-SWITZERLAND COUNTIES

Morris, Edward D., Jr.....Deputy (47230)

Madison

(*Zip Code* 47250)

Alcorn, Merritt O.....R. R. 2
Bryan, Paul E.....Madison State Hospital
Burcham, James B.....Madison State Hospital
Childs, Wallace E.....112 Presbyterian Ave.
Fong, Theodore C. C.....Madison State Hospital
Haney, William K...P. O. Box 846, Madison Station
Hare, Francis W., Jr.....722 W. Main St.
Harnden, Hurlbut L.....426 E. Main St.
Harris, George F.....445 Clifty Dr.
Heaton, Elton.....King's Daughters' Hospital
Holmes, Phillip J.....Madison State Hospital
Jackson, Howard C.....104 E. Third St.
Johnson, Robert D.....722 W. Main St.
Love, John W.....Madison State Hospital
McAtee, Ott B.....Madison State Hospital
Modisett, Jackson W.....722 W. Main St.
Modisett, Marcella S.....722 W. Main St.
Petway, Allen P.....Jefferson Proving Ground
Pratt, Ralph M., Jr.....323 Poplar St.
Riley, Henry S.....722 W. Main St.
Rucker, Warren R.....Fairmont Dr.
Shuck, William A.....Odd Fellows Bldg.
Sloan, W. Keith.....426 E. Main St.
Turner, Anna Goss.....602 E. Second St.
Zink, Robert O.....722 W. Main St.

Graves, Noel S.....Vevay (47043)

JOHNSON COUNTY

Deogracias, Francisco D.
R. R. 1, Edinburg (46124)
MacQuigg, David E.
P. O. Box 305, Edinburg (46124)

Franklin

(*Zip Code* 46131)

Andrews, Hugh K.....1035 W. Jefferson St.
Bullers, Robert C.....395 S. Home Ave.
Chappel, Alfred T.....100 N. Main St.
Deppe, Charles F.....301 E. Jefferson St.
Ferrara, Joseph F.....1107 N. Main St.
Foster, Robert H. K.....301 E. Jefferson St.
Hibbs, William G.....Masonic Hospital
Jones, Charles A.....251 E. Jefferson St.
Mock, Harry E., Jr.....901 N. Main St.
Palmer, Harley P.....Johnson County Mem. Hosp.
Province, William D.....100 N. Main St.
Records, Arthur W. (S).....198 E. Jefferson St.
Records, John M.....198½ E. Jefferson St.
Reynolds, Paul.....1035 W. Jefferson St.
Ritteman, George W..Johnson Co. Memorial Hosp.
Roller, Mac C.....1551 N. Main St.
Stogsdill, Willis W.....R. R. 4
Walters, Jack L.....1551 N. Main St.
Waymire, William M.....101 N. Walnut St.
Wesemann, Merrill M.....251 E. Jefferson St.

Greenwood

(*Zip Code* 46142)

Barnes, Helen Beall.....360 S. Madison Ave.
Brown, George E.....374 S. Madison Ave.
Link, Charles W., Jr.....365 E. Main St.
Machledt, John H.....243 S. Madison Ave.
Ogle, Robert W.....360 S. Madison Ave.
Sheek, Kenneth I.....360 S. Madison Ave.
Tiley, George A.....41 N. Madison Ave.
Young, Joseph W.....365 E. Main St.

Bullington, George E.....Whiteland (46184)

KNOX COUNTY

(*Zip Code* 47512)

Bicknell

Byrne, Robert J.....207 N. Main St.

Springstun, George H. (S).....Oaktown (47561)

Vincennes

(*Zip Code* 47591)

Anderson, John B.....30 N. Third St.
Anderson, Richard M.....30 N. Third St.

Arbogast, Paul B.....915 Main St.
Barrett, Thomas L.....307 S. Fifth St.
Bartlett, Donald T.....307 S. Fifth St.
Beckes, Ellsworth W.....220 N. Fifth St.
Black, Boyd K.....Good Samaritan Hospital
Cantwell, Edgar R.....202 Broadway St.
Chattin, Herbert O.....729 Main St.
Coffel, Melvin H.....214 Buntin St.
Combs, Daniel J.....1325 McDowell Rd.
Curtner, Myron L. (S).....222 N. Sixth St.
Dayson, Louie O.....218 Security Bank Bldg.
Ewing, Nathaniel D.....719 Nicholas
Floyd, Malcolm S.....Good Samaritan Hospital
Haswell, John.....607 Dubois St.
Hendrix, Charles E.....603 Busseron St.
Humphreys, Joe E.....1516 N. Second St.
Jacqmain, Ralph J.....609 Dubois St.
McCormick, Hubert D. (S).....327 Busseron St.
McDowell, Mordecai M.....611 Dubois St.
McMahan, Virgil C.....R. R. 3, Monroe City Rd.
Miller, Charles L.....301 American Bank Bldg.
Moore, Robert G.....21 N. Third St.
Murray, John S.....317 Security Bank Bldg.
Nichols, Robert J.....605 Busseron St.
Parmenter, Harry B.....301 American Bank Bldg.
Shaffer, Kenneth L.....302 Main St.
Shanklin, Jack L.....702 Vigo St.
Smith, Ralph O.....603 Busseron St.
Spencer, Frederic.....429 S. Sixth St.
Stein, Richard H.....301 American Bank Bldg.
Stewart, J. Frank W.....Hillcrest Hospital
Vaughn, Walter R.....615 Dubois St.
von der Lieth, William C.....14 N. Third St.
Welch, Norbert M.....615 Dubois St.

Hoffman, Doris (S)
268 Pebble Beach Dr., Goleta, Calif. (93017)

KOSCIUSKO COUNTY

Wilson, Wymond B.....Mentone (46539)
Pierson, Pearl H.....Silver Lake (46982)

Warsaw

(*Zip Code* 46580)

Arford, John E.....827 S. Union St.
Baum, John R.....212 S. Indiana
Brooks, Leonard C.....2022 E. Winona Ave.
Cron, William J.....827 S. Union St.
Dormire, Robert D.....827 S. Union St.
DuBois, Charles C. (S).....800 E. Center St.
Hashemi, Hossein.....602 S. Buffalo
Haymond, George.....600 E. Winona Ave.
Keough, Thomas F.....600 E. Winona Ave.
Moser, Arthur L.....600 E. Winona Ave.
Parke, William C.....600 E. Winona Ave.
Snider, Roland.....600 E. Winona Ave.
Thomas, Everett W.....212 S. Indiana

Hogle, Frank D.
Beatty Memorial Hospital, Westville (46391)

LAGRANGE COUNTY

Mattox, Dean L.....Howe (46746)
Taylor, M. Reed, Jr.....Howe (46746)
Yunker, Philip E.....Howe (46746)

LaGrange

(*Zip Code* 46761)

Flannigan, Harley F.....213 W. Lafayette
Mellinger, Michael O.....Medical Bldg.
Studebaker, Lloyd R.....300 N. Townline Rd.

Martin, Allen S.....Shipshewana (46565)
Lehman, Kenneth M.....Topeka (46571)

LAKE COUNTY

Cedar Lake

(*Zip Code* 46303)

Babcoke, Gary A.....R. R. 2, Box 337
King, Robert W.....R. R. 1, Box 6
Miller, Donald C.....R. R. 2, Box 337
Misch, William.....R. R. 2, Box 337
Steward, Paul W.....R. R. 2, Box 337

Crown Point

(*Zip Code* 46307)

Alvarez, Paul.....7745 Carolina Pl.
Birdzell, John P.....124 N. Main St.
Carpenter, Bennie F.....123 N. Court St.
Carroll, Mary E.....124 N. Main St.
Doherty, Raymond J.....47 W. 68th Place
DuSold, Donald D.....R. R. 1, Box 122
Fadul, Armand.....47 W. 68th Pl.
Gray, Daniel E.....182 W. North St.
Gutierrez, Peter E.....12110 Grant
Horst, William N.....123 N. Court St.
Mirich, Ernest C.....960 W. 66th Ave.
Monroe, F. Bruce.....40 West 73rd St.
Russo, Andrew E.....12110 Grant
Steele, Everett B.....318 S. East St.
Troutwine, William R.....224 S. Court
Wilson, Norman J....James Parramore Hospital

Lopez, Filemon P.....212 Joliet St., Dyer (46311)

East Chicago

(*Zip Code* 46312)

Barron, Elmer A.....3414 Michigan Ave.
Benchik, Frank A.....4712 Magoun Ave.
Beruben, Miguel F.....3717 Main St.
Boys, Fay F.....4712 Magoun Ave.
Braun, Benjamin D. ....St. Catherine's Hospital
Broomes, Edward L. C.....2402 Broadway
Bryant, Edward G.....2220 Broadway
Campagna, Ettor A.....3406 Guthrie St.
Dainko, Alfred J.....915 W. Chicago Ave.
Dimailig, Gregorio H.....1802 Columbus Dr.
Dunning, Preston M.....3210 Watling
Feinberg, Irwin.....1802 E. Columbus Dr.
Fleischer, Jacob C.....4035 Elm St.
Given, Gilbert Z.....3803 Main St.
Govorchin, Alexander.....4614 Baring
Grosso, William G.....1919 E. Columbus Dr.
Hammer, Michael.....4035 Elm St.
Harper, James W.....3847 Euclid
Hayes, Jesse D.....4804 Alexander
Hernandez, I. C.....1802 Columbus Dr.
Jacobo, Miguel J.....1419 Carroll St.
Keskin, Ibrahim.....1820 Columbus Dr.
Kopanko, Bernard F.....915 W. Chicago Ave.
Levin, Eli L. (S).....4105 Grand Blvd.
McGuire, Desmond F. (S)...3429 Michigan Ave.
Marks, Ora L.....815 W. Chicago Ave.
Marquinez, Adoracion A.....2102 Lituanica Ave.
Martirez, Napoleon A....4710 Indianapolis Blvd.
Milan, Shijachki D.....622 W. Chicago Ave.
Nicosia, John B.....1802 E. Columbus Dr.
Noe, Joseph T.....3210 Watling St.
Payne, Arthur C. (S).....2020 Broadway
Reitman, Paul H.....4321 Fir St.
Romero, Plinio.....3807 Main St.
Shulruff, Harry I.....3701 Main St.
Strom, Jack.....1820 E. Columbus Dr.
Teegarden, Joseph A., Jr...1919 E. Columbus Dr.
Teplinsky, Louis L.....1802 E. Columbus Dr.
Trepagnier, Francis B.....2108 Broadway
Walker, Adolph P.....1820 E. Columbus Dr.
Wang, Tieh C.....4321 Fir St.

Gary

(*Zip Code 464 plus zone number*).

Abramson, Allan L.....3290 Grant St. (08)
Agana, Adriano A.....5000 W. Ridge Rd. (08)
Alfano, Paul A.....2717 Wabash (04)
Almquist, Carl O. (S).....550 Lincoln (02)
Ambrozaitis, Kazys.....1600 W. Sixth Ave. (02)
Amico, Pasquale J.....6111 Harrison St. (08)
Balter, Eugene.....1600 W. Sixth Ave. (02)
Barros, Paul.....6111 Harrison St. (08)
Barton, Reginald R.....427 S. Lake (03)
Behn, Walter M. (S)....1514 W. Fifth Ave. (02)
Bendler, Carl H.....3290 Grant St. (08)
Bergal, Milton B.....504 Broadway (02)
Bernard, Marvin R.....4431 Broadway (09)
Bills, R. James.....504 Broadway (02)
Bills, Robert N. (S).....504 Broadway (02)
Bornstein, Herschel.....3233 Broadway (09)
Brandman, Harry.....504 Broadway (02)
Brincko, John.....504 Broadway (02)
Brink, Calvin C. (S)..411 W. Eighth Ave. (02)
Brown, Leo R.....3290 Grant St. (08)
Cabrera, Pelayo B.....540 Tyler St. (02)
Cahue, Antonio R.....504 Broadway (02)
Carberry, George A.....3656 Grant St. (08)
Carbone, Joseph A.....6111 Harrison St. (08)
Carey, J. Albert.....2964 W. 11th Ave. (04)
Carmody, Raymond F.....6111 Harrison St. (08)
Choslovsky, Sydney.....1600 W. Sixth Ave. (02)
Chube, David D.....1649 Broadway (07)
Cohen, Hyman.....1600 W. Sixth Ave. (02)
Cooper, Leo K.....504 Broadway (02)
Corrao, Gaetano.....2471 Colfax (06)
Daniel, Robert A.....738 Broadway (02)
Darling, Dorothy R.....807 Fayette (03)
De Bois, Elon.....2200 Grant St. (04)
Dierolf, Edward J.....504 Broadway (02)
Disney, Charles T.....504 Broadway (02)
Donchess, Joseph C.....578 Broadway (02)
Doneff, Ronald H...5490 Broadway Plaza (08)
Doumanian, Heratch O.....540 Tyler St. (02)
Duncan, John S. (S).....2165 W. 11th Ave. (04)
English, Hubert M. (S)....673 Broadway (02)
Espy, Theodore R.....1901 Broadway (07)
Fadell, Matthew J.....6111 Harrison St. (08)
Foster, Douglas L.....475 Broadway (02)
Gallinatti, John J.....554 S. Lake (03)
Gehring, Thomas A.....6111 Harrison St. (08)
Gilles, Pierre.....2200 Grant St. (04)
Glover, William J.....6111 Harrison St. (08)
Goldberg, Harold B.....3656 Grant (08)
Golding, Robert F.....540 Tyler St. (02)
Goldstone, Adolph.....3229 Broadway (09)
Goldstone, Arthur.....4676 Jefferson Pl. (08)
Goldstone, Joseph.....3229 Broadway (09)
Goldstone, Robert J.....3229 Broadway (09)
Goldstone, Sidney R.....535 W. 35th Ave. (08)
Goodwin, Thomas..3820 Central, East Gary (05)
Grant, Benjamin F.....1706 Broadway (07)
Gregoline, Amadeo F.....700 Arthur (04)
Gregoline, Eugene.....4655 Broadway (09)
Hadey, James H.....2620 W. Fifth Ave. (04)
Haith, John W.....1960 W. 11th St. (04)
Halley, Robert.....4655 Broadway (09)
Han, Daniel.....1600 W. Sixth Ave. (02)
Hedrick, James T.....2200 Grant St. (04)
Hodurski, Zigfield.....4319 Broadway (09)
Hoit, Leonard.....504 Broadway (02)
Holliday, Alfonso.....2200 Grant St. (04)
Irish, Wilbur J.....358 Johnson St. (02)
Jahns, Albin A.....2318 W. Fifth St. (04)
Johnson, Arnold L.....2200 Grant St. (04)
Johnson, Lonnie B. (S).....123 W. 21st St. (07)
Johnson, William H.....6111 Harrison St. (08)
Kaltenthaler, Albert....1600 W. Sixth Ave. (02)
Kamen, Jack M.....540 Tyler St. (02)
Kendrick, Frank J.....504 Broadway (02)
Klaus, Julius M.....4645 Broadway (09)
Kmak, Chester J.....6111 Harrison (08)
Kobrin, Meyer W.....3229 Broadway (09)
Kolettis, John G.....6111 Harrison St. (07)
Kopcha, Joseph E.....504 Broadway (02)
Korn, Jerome M.....3290 Grant St. (08)
Leahey, Jerome M.....554 S. Lake St. (03)
Lebioda, Henry S.....5490 Broadway Plaza (08)
Lewis, George N.....504 Broadway (02)
Lewis, Lucien A.....2200 Grant St. (04)
Lipschutz, Harold.....3290 Grant (08)
Lipsey, Alfred J.....3290 Grant (08)
Loh, Hwei-Ya (Chang).252 Morningside Ave. (08)
Loh, Wei-Ping.....1600 W. Sixth Ave. (02)
Lopez, Santiago A.....3807 Washington St. (08)
Lorenty, Thaddeus B.....504 Broadway (02)
Lovell, Martin H. (S).....124 W. 25th Ave. (02)
Lutz, Georgianna.....504 Broadway (02)
Lytwakiwsky, Anatol.....6101 Miller Ave. (03)
McDonald, Walter E.....2200 Grant St. (04)
McMath, Samuel B.....1649 Broadwayy (07)
Manalo, Francisco S.....538 Lincoln (02)
Marcus, Morris C. (S).....3229 Broadway (09)
Marshall, Millard R.....1215 Vermillion St. (03)
Martino, Robert S.....2318 W. Fifth Ave. (04)
Mason, Earl.....540 Tyler St. (02)
Mather, J. Winford
2250 Ripley St., East Gary (05)
Mayorga, Alfredo.....3807 Washington (08)
Milos, Robert J.....504 Broadway (02)
Minczewski, Richard C.
5490 Broadway Plaza (08)
Mirro, John A.....6111 Harrison St. (08)
Mitchell, Georgia B.....1706 Broadway (07)
Molengraft, Cornelius J.....504 Broadway (02)
Moore, Edwin G.....26 E. 15th Ave. (07)
Morris, Hyman R.....3229 S. Broadway (09)
Moswin, Jack A.....504 Broadway (02)
Mott, William H.....2200 Grant St. (04)
Nazon, Yvon J.....1649 Broadway (07)
Nelson, Walfred A.....559 S. Lake St. (03)
Nuval, Augusto J.....540 Tyler St. (02)
Oberlander, Seymour.....3290 Grant St. (08)
Olivo, Marciano T.....1600 W. Sixth Ave. (02)
Olson, Leslie D.....2318 W. Fifth Ave. (04)
Ornelas, Joseph P.....6111 Harrison St. (08)
Pappas, Eddie T.....2717 Wabash Ave. (04)
Parratt, Louis W.....708 Broadway (02)
Penn, Robert A.
3820 Central Ave., East Gary (05)
Pettis, Arthur G.....1600 W. Sixth Ave. (02)
Phillips, Donald M.....3000 W. 57th Ave. (08)
Pierson, Howard.....620 E. 10th Pl. (02)
Platis, James M.....504 Broadway (02)
Poracky, Bernard F.....504 Broadway (02)
Pruitt, Jacob E.....6111 Harrison St. (08)
Radigan, Leo R.....6111 Harrison St. (08)
Reynolds, James S.....504 Broadway (02)
Richter, Samuel.....504 Broadway (02)
Riordan, John F.....1600 W. Sixth Ave. (02)
Robinson, Walter K.....6111 Harrison St. (08)
Roig, Jose H.....6111 Harrison St. (08)
Rosenbloom, Philip J.....571 Lincoln St. (02)
Ross, David E., Jr.....633 E. 21st Ave. (07)
Roth, Leo.....3229 Broadway (09)
Roth, Melvin I.....3229 Broadway (09)
Rubin, Simon S.....504 Broadway (02)
Ryan, Hubert J.....5490 Broadway Plaza (08)
Saavedra, Bernardo.....4431 Broadway (09)
Sablay, Nonito M.....540 Tyler St. (02)
Sala, Joseph J.....2705 Wabash (04)
Sala, Walter R.....2705 Wabash (04)
Schulz, Kurt J. .....4645 Broadway (09)
Scully, John T.....2318 W. Fifth Ave. (04)
Senese, Thomas J.....504 Broadway (02)
Shapiro, Seymour W.....6111 Harrison St. (08)
Shevick, Alexander....2620 W. Fifth Ave. (04)
Slama, George F.....6111 Harrison St. (08)
Slama, John T.....6111 Harrison St. (08)
Speer, Thomas A...Gary Sheet & Tin Mills (02)

Spellman, Frank W.....401 S. Lake (03)
Spivack, Mary.....504 Broadway (02)
Stern, Mona K.....7535 E. Harold St. (03)
Thomas, Daniel D.....3290 Grant St. (08)
Thomas, Gerald J.....3290 Grant St. (08)
Turgi, Robert W.....6111 Harrison St. (08)
Valencia, Monico
2606 Central Ave., East Gary (05)
Valenzuela, Roberto D.....765 Broadway (02)
Valenzuela, Sofia S.....765 Broadway (02)
Volan, George J.....2620 W. Fifth Ave. (04)
Voorhies, McKinley.....1606 Broadway (07)
Weiskopf, Henry S.....504 Broadway (02)
Wharton, Russell O. (S)....6559 Ash Place (03)
Williams, Alexander S.....436 W. 25th Ave. (07)
Williams, Carl N.....1902 W. 11th Ave. (04)
Williams, Edwin D.....436 W. 25th St. (07)
Williams, Fred R.....1119 Grant St. (04)
Wing, Herman.....1600 W. Sixth Ave. (02)
Woodward, William M.
U.S. Steel—Gary Works (02)
Yast, Charles J.....6111 Harrison St. (08)
Yocum, Paul S., Jr.....504 Broadway (02)
Yocum, William S.....9 W. Sixth Ave. (02)
Young, George M.....3656 Grant St. (08)
Young, Robert L.....504 Broadway (02)
Zucker, Edward.....504 Broadway (02)

Griffith

(*Zip Code* 46319)

Cespedes, Carlos A.....401 N. Broad St.
Lundeberg, Ralph A.....1212 N. Broad St.
Purcell, Richard J.....433 N. Greenwood
Siekierski, Joseph M.....145 N. Griffith

Hammond

(*Zip Code* 463 *plus zone number*).

Balaguer, Carmen V.....5217 Hohman Ave. (20)
Bethea, Dennis A. (S).....1021 Field St. (20)
Brennan, Bess B.....2450 169th St. (23)
Cotter, Edward R.....2415 169th St. (24)
Davis, Thomas N. III....5246 Hohman Ave. (20)
Dragomer, Andrei S.....2450 169th St. (23)
Eggers, Ernest L. (S).....635 165th St. (24)
Egnatz, Nicholas....7330 Indianapolis Blvd. (24)
Fischer, Burnell.....49 Indi-Illi Park (24)
Friedman, Isadore E..7217 Indianapolis Blvd. (24)
Hirsch, Melvin L.....2450 169th St. (23)
Howard, William Harry (S)
5231 Hohman Ave. (20)
Jones, Eli S. (S).....50 Kenwood St. (24)
Kolanko, Leon A.....30 Douglas St. (20)
Koransky, David S.....6850 Hohman Ave. (24)
LaFollette, Forrest R.....2450 169th St. (23)
Long, Keith J.....30 Douglas St. (20)
Lutz, Andreas L.....429 Conkey (24)
McVey, Clarence A. (S)
5231 Hohman Ave. (20)
Manley, Floyd.....6010 Columbia Ave. (20)
Marks, Salvo P.....6860 Hohman Ave. (24)
Mason, Richard L.....132 Rimbach St. (20)
Modjeski, Joseph R.
6635 Grand Ave., Apt. 1-C (23)
Montes, Herminio Y.....5217 Hohman Ave. (20)
Nunez, Gilbert T.....6827 Kennedy (23)
Palmer, Barron M. F.....6134 Columbia (20)
Panares, Solomon V.....5434 Hohman Ave. (20)
Peck, Edward A.....430 Conkey St. (24)
Peiffer, Geraldine M...St. Margaret Hospital (20)
Pilot, Jean.....5231 Hohman Ave. (20)
Polite, Nicholas L..7127 Indianapolis Blvd. (24)
Premuda, Franklin F...6625 Kennedy Ave. (23)
Ramker, Daniel T.....7040 Kennedy Ave. (23)
Remich, Antone C.....30 Douglas St. (20)
Rhind, Alexander W.....422 Conkey St. (24)
Rosenthal, Carl....St. Margaret Hospital (20)
Schwartz, Mary M.....7315 Forest Ave. (24)
Shapiro, Joseph.....2450 169th St. (23)
Solis, Roger V.....430 Conkey St. (24)
Somers, Emmanuel....St. Margaret Hospital (20)
Sroka, Alexander G.....5305 Hohman Ave. (20)
Stasick, Murray.....7330 Indianapolis Blvd. (24)
Steen, Lowell H.....2450 169th St. (23)
Stern, Samuel L.....5231 Hohman Ave. (20)
Tilka, Edward C.....7134 Calumet Ave. (24)
Weissman, Charles G.....5246 Hohman Ave. (20)
White, Gilbert H., Jr.....6429 Kennedy Ave. (23)
Willardo, Albert T.....5451½ Hohman Ave. (20)
Wong, Samuel N.....30 Douglas St. (20)
Zallen, Stanley G.....6933 Kennedy Ave. (23)

Highland

(*Zip Code* 46322)

Adler, Fred.....8127 Kennedy
Adler, Yolanda.....8420 Cottage Grove Ave.
Angel, Virgil E.....2933 Jewett
Eugenides, Tatiana.....8136 Kennedy
Florcruz, Arturo R.....3605 43rd St.
Marquinez, Apolinario A.....8410 Delaware Pl.
Santiago, Iluminada.....8127 Kennedy
Sroka, Stanley J.....2942 Highway Ave.
Vandertoll, Donald.....8123 Kennedy Ave.
Vergara, Abelardo F.....3727 44th St.

Hobart

(*Zip Code* 46342)

Carter, John O.....295 S. Wisconsin
Kellar, Philip E.....904 W. Ridge Rd.
Krsek, Archie J.....10 N. Michigan Ave.
Markle, Joseph G.....703 N. Hobart Rd.
Parker, Harry C. (S).....831 Garfield St.
Pike, Warren H.....108 E. Third St.
Reed, John J.....10 N. Michigan Ave.
Stookey, Richard D.....295 S. Wisconsin
Thomas, Andrew C.....124 Main St.

Kroczek, Stephen E.
449 Eastern Ave., Indianapolis (46201)

Lowell

(*Zip Code* 46356)

Smith, Robert D.....308 E. Commercial
Templin, David B.....308 E. Commercial

Brown, David B...Box 41, Michigan City (46360)
Wimmer, Robert N. (S).....101 Superior St., Michigan City (46361)

Munster

(*Zip Code* 46321)

Allegretti, Michael L.....7905 Calumet Ave.
Alt, Edward M., Jr.....7550 Hohman Ave.
Angulo, Edilberto D.....110 Ridge Rd.
Arbeiter, Herbert I.....7550 Hohman Ave.
Arrowsmith, James L.....513 Ridge Rd.
Beconovich, Robert.....7905 Calumet Ave.
Bombar, Leslie E.....7905 Calumet Ave.
Branco, Arthur M.....7905 Calumet Ave.
Brenner, Howard B.....7905 Calumet Ave.
Brodersen, James D.....7905 Calumet Ave.
Chael, Thomas C.....7905 Calumet Ave.
Church, Robert A.....110 Ridge Rd.
Clark, Samuel S.....513 Ridge Rd.
Costello, Albert J.....110 Ridge Rd.
de la Cotera, Frederick G.....7905 Calumet Ave.
DePorter, Louis A.....7905 Calumet Ave.
Eggers, Henry W.....110 Ridge Rd.
Espino, Jose C.....8144 Calumet Ave.
Feldner, Ronald P.....110 Ridge Rd.
Fetrow, Kenneth O.....7905 Calumet Ave.
Fitzpatrick, William J.....110 Ridge Rd.
Fox, Jack M.....7550 Hohman Ave.
Frieske, David A.....7905 Calumet Ave.
Galante, Albert.....110 Ridge Rd.
Gevirtz, Milton B.....7905 Calumet Ave.
Goldenberg, Mitchell E.....7550 Hohman Ave.
Grabow, Emil F.....7905 Calumet Ave.
Gross, Joseph O.....7905 Calumet Ave.
Halum, Ramon G., Jr.....7905 Calumet Ave.

Hammond, Stanley.....7905 Calumet Ave.
Harvey, David M.....7905 Calumet Ave.
Hehemann, William V.....7905 Calumet Ave.
Hieber, Frank R.....7905 Calumet Ave.
Husted, Robert G.....7905 Calumet Ave.
Kelly, George G.....7905 Calumet Ave.
Kenney, Francis D.....110 Ridge Rd.
Kitt, Walter.....7550 Hohman Ave.
Kott, Alexander.....7550 Hohman Ave.
Kuhn, Arthur J.....7905 Calumet Ave.
Kuhn, Hedwig S. (S).....7905 Calumet Ave.
Lanman, John U.....8146 Calumet Ave.
Larrabee, James F.....7905 Calumet Ave.
Lautz, Herbert A.....7905 Calumet Ave.
Madlang, Rodolfo M.....7550 Hohman Ave.
Mansueto, Mario D.....509 Ridge Rd.
Maroc, James A.....110 Ridge Rd.
Marshall, Wilbur J.....7905 Calumet Ave.
Mason, John C.....7905 Calumet Ave.
Mintz, Alfred M.....7550 Hohman Ave.
Morris, William H.....7905 Calumet Ave.
Navarre, Vincent J.....509 Ridge Rd.
Neal, Leonard W.....7905 Calumet Ave.
Paul, Eudell G.....7550 Hohman Ave.
Polydefkis, Dimitri.....509 Ridge Rd.
Portney, Fred R.....7905 Calumet Ave.
Rasch, George C., Jr.....509 Ridge Road
Rawlins, Carolyn M.....7550 Hohman Ave.
Rendel, Donald T.....513 Ridge Rd.
Repay, Walter A.....513 Ridge Rd.
Rosevear, Henry J.....110 Ridge Rd.
Rubright, Robert L.....7905 Calumet Ave.
Santare, Vincent J.....513 Ridge Rd.
Schlesinger, Daniel J.....7905 Calumet Ave.
Schwartz, Jack.....7550 Hohman Ave.
Serna, Carlos A.....1417 MacArthur
Serrano, Jose F.....7905 Calumet Ave.
Smith, Jerald E.....7905 Calumet Ave.
Smitley, Roger P.....110 Ridge Rd.
Snyder, Jerome A.....7905 Calumet Ave.
Stevens, Edwin W.....7905 Calumet Ave.
Trachtenberg, Lee.....513 Ridge Rd.
Troy, Jack M.....110 Ridge Rd.
Valderrama, Hugo.....1325 MacArthur
Vitacca, Rocco J.....110 Ridge Rd.
Westhaysen, Peter V.....7550 Hohman Ave.
Wooden, Thomas F.....8351 Crestwood Ave.

Angeles, Uldarico A.....Box 910, Portage (46368)
Egnatz, Charles D.....Rts. 41 and 30, Schererville (46375)
Skeen, Earl D. (S)..419 N. Sunnyside, South Bend (46617)
Vore, Hugh A. (S)..Lamp Post Manor Estates, R. R. 3, Warsaw (46580)

Whiting

(*Zip Code* 46394)

Becker, Samuel W.....2075 Indianapolis Blvd.
Best, Robert C.....2075 Indianapolis Blvd.
Brennan, William C.....2075 Indianapolis Blvd.
Ferry, John L.....2075 Indianapolis Blvd.
Frankowski, Clementine E...1907 New York Ave.
Gonzales, Sesinando A.....2075 Indianapolis Blvd.
Greisen, Jack G.....2075 Indianapolis Blvd.
Gustaitis, John W.....2075 Indianapolis Blvd.
Kim, Young S.....2075 Indianapolis Blvd.
Kudele, Louis T.....1321 119th St.
Reed, Ronald R.....2075 Indianapolis Blvd.
Reeve, Bryce L.....2815 Indianaplois Blvd.
Rudser, Donald H.....2075 Indianapolis Blvd.
Siler, George B.....2815 Indianapolis Blvd.
Silvian, Harry A.....1010 119th St.
Smith, Theodore J.....1542 Roberts
Sokol, Allen B.....2075 Indianapolis Blvd.
Stecy, Peter.....1902 Indianapolis Blvd.
Urbanski, Walter P.....2075 Indianapolis Blvd.
Weinberg, Benjamin A.....1104 119th St.

Avegno, John H.
3009 Burnet Ave., Cincinnati, Ohio (45219)
Bakos, Edward R.....7203 Sarah, Apt. 4, Maplewood, Mo. (63143)
Brand, Anna
656 Wentworth, Calumet City, Ill. (60409)
Dimitroff, Lambro.....500 River Oaks Dr., Calumet City, Ill. (60409)
Dumanian, Ara V.....18668 Dixie Highway, Homewood, Ill. (60430)
Frahm, Charles....18668 Dixie Highway, Homewood, Ill. (60430)
Gardiner, H. Glenn.....P. O. Box 21, 111, Kennedy Space Center, Fla. (32815)
Hayes, Frank W.....2426 Harbor Court, Fairfield, Calif. (94533)
Johns, David R. (S).....2080 Lopiere Rd. Beloit, Wis. (53511)
Moleski, Walter L.....Hq. B, 6/33 Arty., 108th Group, APO San Francisco, Calif. (96490)
Murphy, Joseph F.....3335 178th St., Lansing, Ill. (60438)
Seyler, Anna G. (S)
2780 Hillcrest Dr., LaVerne, Calif. (91750)
Theobald, Sterling.....New Tribes Institute, Star Route, Jersey Shore, Pa. (17740)
Tyrrell, Joseph J.....800 State Line, Calumet City, Ill. (60409)
Tyrrell, Thomas C.
800 State Line, Calumet City, Ill. (60409)
Yanson, Mannfredo R. S...P.O. Box 2024, Oxnard, Calif. (93031)

LA PORTE COUNTY

Salsburg, Herbert E.....R. R. 1, Box 357, Hamlet (46532)
Oak, David D., Jr.....Hanna (46340)
Oak, David D., Sr. (S).....LaCrosse (46348)

La Porte

(*Zip Code* 46350)

Backer, George P.....806 Maple Ave.
Backer, Mary B.....903 Indiana Ave.
Carpentier, James R.....1200 Michigan Ave.
Carter, Fred S.....1200 Michigan Ave.
Datzman, Basil J.....301 Wile St.
Durham, Lowell J.....316 Pine Lake Ave.
Elshout, Clem H.....403 First Nat'l. Bank Bldg.
Erwin, W. Robert.....216 E St.
Farnsworth, Samuel A.....1012 Michigan Ave.
Feinn, Harry S.....1013 Indiana Ave.
Kelsey, Robert M., Jr.....1200 Michigan Ave.
Kepler, Robert W.....708 Harrison St.
Kim, Joon S.....Community Hospital
Kistler, James J.....911 Maple Ave.
Lansford, Kenneth G.....1200 Michigan Ave.
Larson, Goyt O.....1110 Indiana Ave.
Mead, Frank E.....901 Indiana Ave.
Moore, William G.....301 Wile St.
Mueller, Edwin C.....1200 Michigan Ave.
Philbrook, Seth S.....705 Harrison St.
Predd, Adolph C.....909 Madison St.
Richter, John C.....1200 Michigan Ave.
Sanchez, Jose D.....403 First Natl. Bank Bldg.
Scott, John S.....806 Maple Ave.
Sirugo, Aldo C.....1200 Michigan Ave.
Smith, John A.....301 Wile St.
Sprecher, James J. J.....1001 Maple Ave.
Tabaka, Francis B.....1201 Maple Ave.
von Asch, George.....1200 Michigan Ave.
Zahrt, Frank H.....Fox Village Medical Bldg.

Michigan City

(*Zip Code* 46360)

Armstrong, Thomas D.....120 W. Ninth St.
Arney, Amos.....125 E. Fifth St.
Baker, Warren (S).....427 Warren Bldg.
Bankoff, Milton L.....125 E. Fifth St.
Battle, Frederick G.....3714 Franklin St.
Bergan, Joseph A.....217 W. Homer St.
Berkson, Myron E.....801 Washington St.
Carlson, Norman R.....913 Wabash St.
Fargher, Francis M.....907 Washington St.
Frost, Robert J.....1701 Buffalo St.
Gardner, Melvin D.....801 Washington St.
Gardner, Russell A.....801 Washington St.
Gilmore, Robert W.....1715 Buffalo St.
Gilmore, Russell A. (S).....304 Warren Bldg.
Hay, Gene R.....515 Pine St.
Henderson, Norman C.....131 E. Eighth St.
Hillenbrand, Charles.....128 W. 10th St.
Hodonos, Phillip E.....125 E. Fifth St.
Jones, King S.....328½ Franklin St.
Kemp, John T.....122 E. Seventh St.
Kerr, Charlotte H.....1707 Buffalo St.
Kerr, John E.....1709 Buffalo St.
Kerrigan, John F.....916 Washington St.
Kerrigan, Robert L. (S).....916 Washington St.
Kubik, Francis J.....902 Pine St.
Liddell, Charles K.....515 Pine St.
Luce, John W.....916 Washington St.
Mannion, Rodney A.....1709 Buffalo St.
Marske, Robert L.....1713 Buffalo St.
McGue, Frank J.....801 Washington St.
McInerney, Gerald T.....3714 S. Franklin St.
Miller, Maurice.....125 E. Fifth St.
Milne, Walter S.....916 Washington St.
Mladick, Edward A.....1412 Franklin St.
Novak, Clarence G.....3714 S. Franklin St.
O'Brien, Raymond J.....1412 Franklin St.
Paul, Leonard G.....515 Pine St.
Phillips, John H.....801 E. 11th St.
Pilecki, Peter J.....515 Pine St.
Plank, Charles R.....732 E. Pine St.
Reed, Nelle C. (S).....3210 Tilden Ave.
Roberts, Thomas K.....517 Pine St.
Schmitt, Robert J.....701 Washington St.
Stark, William A.....1412 Franklin St.
Taub, Robert G.....515 Pine St.
Ticsay, Bienvenido V.....801 Washington St.
Walters, William H.....3714 Franklin St.
Weeks, Patrick H. (S).....305 N. Carroll Ave.
Weiss, Albert E.....517 Pine St.
Zalac, Donald A.....732 Pine St.

Weinstock, Adolph.....Rolling Prairie (46371)
Moosey, Louis.....Union Mills (46382)
Benz, Owen F.....Wanatah (46390)

Westville

(*Zip Code* 46391)

Bosler, Howard A.....Beatty Circle
Brauer, Abraham A.....Beatty Memorial Hospital
Dieter, William J.....Box 145
Hetman, Mitchell J.....Westville
Matthew, John R.....Beatty Memorial Hospital
Mendez, Carlos.....Beatty Memorial Hospital
Meyer, Hans.....Beatty Memorial Hospital
Oster, Jack H.....Beatty Memorial Hospital
Sennett, Cecil M. (S).....Box 66

Constan, Evan.....3009 Burnet Ave., Cincinnati, Ohio (45219)

LAWRENCE COUNTY

Bedford

(*Zip Code* 47421)

Austin, Richard P.....Citizens Nat'l. Bank Bldg.
Bridwell, Edgar.....1626 24th St.
Crosby, Reid C.....2900 W. 16th St.
Duncan, Raymond.....2900 W. 16th St.
Dusard, Joseph C...304 Citizens Nat'l Bank Bldg.
Edmonds, Kendrick.....Dunn Memorial Hospital
Emery, Charles B.....2325 Q St.
Fountaine, Thomas J.....1618 24th St.
Hammel, Howard T.....Citizens Nat'l. Bank Bldg.
Hawkins, Richard D.....2900 W. 16th St.
Hurst, Edgar.....Dunn Memorial Hospital
Kasting, Gerald.....1622 24th St.
Kerr, Donald M.....2900 W. 16th St.
Morrow, Robert J.....1317 L St.
Noe, William R.....2900 W. 16th St.
Reuter, John W.....1310 16th St.
Scherschel, John P.....1711 H St.
Shahbahrami, Farrokh.....1714 24th St.
Sorrells, George W.....2900 W. 16th St.
Waldo, Guy H.....2900 W. 16th St.
Wohlfeld, Julius B.....1222 15th St.
Woolery, Richard H.....1310 W. 16th St.

Hamilton, James R...111 S. Seventh St., Mitchell (47446)
Oswalt, James T.....Mitchell (47446)

MADISON COUNTY

Alexandria

(*Zip Code* 46001)

Gaunt, Everett W.....214 E. John St.
Leroy, Alvin G.....1309 N. Harrison St.
Overpeck, George H. (S)....313 N. Harrison St.
Owen, Thomas F.....313 N. Harrison St.
Shafer, Richard H.....111 S. Harrison St.

Anderson

(*Zip Code* 460 *plus zone number.*)

Aagesen, Walter J.....1931 Brown St. (14)
Abell, William A.....1308 E. Fifth St. (12)
Armington, Charles L. 655 Anderson Bank Bldg. (16)
Armington, Robert L.....P.O. Box 1140 (15)
Austin, Charles E.....1415 Raible St. (11)
Baughn, William L.....Guide Lamp
Beeler, Franklin K.....1931 Brown St. (14)
Begley, Robert W.....1912 S. Jackson (14)
Bixler, Donald P.....1931 Brown St. (14)
Blassaras, Crist A.....2005 Broadway (12)
Bowers, Charles R.....2009 Brown St. (14)
Bridges, Alvin L.....1302 Madison Ave. (11)
Buckles, David L.....St. John's Hospital (14)
Bush, Edward R.....704 E. Eighth St. (12)
Campbell, Frank.....1302 Madison Ave. (11)
Caudill, Rodney C.....1308 E. Fifth St. (12)
Denny, Melvin H.....1207 Van Buskirk Rd. (11)
Dixon, Rex W.....934 W. Eighth St. (12)
Doenges, James L.....1931 Brown St. (14)
Donaldson, Frank C.....1931 Brown St. (14)
Drake, James R.....2304 Meridian St. (14)
Drake, John C.....604 Anderson Bank Bldg. (16)
Drennen, Robert V...1230 E. Chesterfield Dr. (12)
Dulin, Basil B.....St. John's Hospital (14)
Ellis, Seth W.....717 Anderson Bank Bldg. (16)
Elsten, Aubrey W.....1307 Park Rd. (11)
Faust, Howard M., Jr. 1508 N. Madison Ave. (11)
Ferguson, Donald H.....2009 Brown St. (14)
Fischer, Warren E.....St. John's Hospital (14)
Gahimer, Joe E.....215 W. 19th St. (14)
Gholz, Lawrence M.....Delco Remy Div. (11)
Hart, William D.....2304 Meridian St. (14)
Hensler, Benton M.....1415 Raible (11)

Jarrett, Paul E.....1415 Raible (11)
Jones, Albert T.....3316 Cherry Rd. (11)
Jones, David G.....1504 N. Madison Ave. (12)
Jones, Horace E.....926 W. Vineyard (12)
Kelly, Wendell C.....704 E. Eighth St. (12)
Kepner, Robert S.....P. O. Box 431 (15)
Kiely, John T.....1931 Brown St. (14)
King, Charles R.....1415 Raible St. (11)
Kopp, William R.....333 Jackson St. (12)
Lamey, Paul T.....423 Citizens Bank Bldg. (16)
Land, Richard N.....2009 Brown St. (14)
Larmore, Joseph L..612 Anderson Bank Bldg. (16)
Long, Paul L.....710 Anderson Bank Bldg. (16)
McDonald, Virgil G (S)..1019 Delaware St. (16)
Meister, Doris (S).....315 W. Ninth St. (16)
Miethke, Richard P.....Delco Remy Div. (11)
Moneyhun, James E.....2006 Brown St. (14)
Morris, Robert A.....1309 Park Rd. (11)
Neale, Alfred E.....1931 Brown St. (14)
Nesbit, Leonard L...415 Citizens Bank Bldg. (16)
Patterson, William K.....1308 E. Fifth St (12)
Polhemus, Warren C.....1803 Pearl St. (16)
Price, Ambrose M...621 Citizens Bank Bldg. (16)
Reed, Roger R.....1601 Van Buskirk Rd. (11)
Rosenbaum, Lloyd E.
647 Citizens Bank Bldg. (16)
Ross, Guy E.....1931 Brown St. (14)
Sharp, William L..559 Citizens Bank Bldg. (16)
Sheldon, Suel A...508 Anderson Bank Bldg. (16)
Stamper, Joseph H.....1415 Raible (11)
Stamper, Robert J.....1415 Raible (11)
Starks, William O.....3405 Nichol Ave. (11)
Stevenson, Jerry L.....St. John's Hospital (14)
Stinson, William M.....333 Jackson St. (12)
Szumilas, Peter P.....2009 Brown St. (14)
Taylor, James A.....Delco Remy Div. (11)
Wagoner, John R...708 Anderson Bank Bldg. (16)
Webb, Harry D.....515 Citizens Bank Bldg. (16)
Weiss, Louis L.....1225 N. Madison (11)
Whitaker, Jack D.....Community Hospital (11)
Wilder, Gordon B.....338 W. Eighth St. (16)
Wilkinson, Roger L.....522 W. Eighth St. (16)
Williams, Francis M.....1132 Central Ave. (16)
Williams, Robert D.....2009 Brown St. (14)
Williams, Robert H.....1132 Central Ave. (16)
Woodbury, Clarence R...3405 Nichol Ave. (11)
Wright, Cecil S. (S)..207 Beverly Terrace (11)

Elwood

(*Zip Code* 46036)

Buechler, William F.....1817 S. A St.
Drake, Marion C.....1201 Main St.
Fitzpatrick, Harry W. (S)..1309 S. Anderson St.
Hanson, Martin F.....1102 S. Anderson St.
Laudeman, Walter A.....1515 N. A St.
Oldag, George E.....1301 Main St.
Ploughe, Ralph R.....517 S. Anderson St.
Scea, Wallace A.....1601 S. Anderson St.
Ulrey, Robert P.....100 N. First St.

Gray, William J.....Chesterfield (46017)
Austin, Maynard A. (S)
3900 Washington Ave., Evansville (47715)
Ferrell, Mars B.....Fortville (46040)
Bishop, Harry A.....Frankton (46044)
Ridgway, Alton H.....Lapel (46051)
Rinne, John I. (S).....Lapel (46051)
Doles, Ted S.....Middletown (47356)
Foley, Phillip D.....Middletown (47356)
Reynolds, Ralph E.....Middletown (47356)
Heckaman, Edward L.....Lock Box 28, Pendleton (46014)
Benedict, Harold G.....222 W. State St., Pendleton (46064)
Leahy, Howard J.....103 E. State St., Pendleton (46064)
Van Ness, William C.....Summitville (46070)

MARION COUNTY

Zerfas, Phyllis K.
R. R. 15, Box 233-Z, Acton (46259)

Beech Grove

(*Zip Code* 46107).

Christie, Marvin C.....3655 S. Sherman Dr.
Dill, Charles W.....3655 S. Sherman Dr.
Fortuna, Frank W.....1615 Main St.
Kim, Young D. (S).....136 N. 17th St.
McNutt, Cyrus C.....2315 Bischoff Dr.
Ramage, Walter F.....244 S. First St.
Riley, Paul D.....622 S. Fourth Ave.
Tepfer, Milton.....St. Francis Hospital
Zerfas, Charles P. A.....926 Main St.

Kime, Edwin N. (S)
1007 Greenwood Ave., Bloomington (47403)
Freeman, Max E.....89 First Ave., Carmel (46032)
Hasewinkel, Carroll W...R. R. 2, Box 354, Carmel (46032)
Allen, Donald R...640 Adams, Evansville (47713)
Harris, Paul N.
Eli Lilly & Co., Toxicology Bldg. Greenfield (46140)
Pierce, Emmett C., Jr.
Eli Lilly & Co., Box 708, Greenfield (46140)
Brown, Earl E.....100 N. Madison, Greenwood (46140)
DeMotte, C. Bowen.....P.O. Box 44, Greenwood (46142)
Cohn, Alvin F.....R. R. 4, Box 747, Greenwood (46142)
Onyett, Harold R.....R. R. 3, Box 32, Greenwood (46142)

Indianapolis

(*Zip Code 462 plus zone number.*)

A

Addleman, Robert H.....5540 Woodside Dr. (8)
Adkins, Harold C.....409 E. 30th St. (5)
Albertson, Frank P.....3544 W. 16th St. (22)
Albrecht, Willard H..7400 Hollingsworth Dr. (68)
Aldrich, Harry D.....5506 E. 16th St. (18)
Aldrich, Howard....4316 E. Washington St. (1)
Alexander, Ezra D.....906 W. 27th St. (8)
Alig, Vincent B.....1815 N. Capitol Ave. (2)
All, Barbara B.....1815 N. Capitol Ave. (2)
Allen, Lawrence E.....Methodist Hospital (2)
Allen, Robert K.....3202 N. Meridian St. (8)
Alley, Thomas W...6181 N. Meridian, W. Dr. (8)
Alvis, David L.....822 Hume Mansur Bldg. (4)
Alvis, Edmond O. (S)..320 Hume Mansur Bldg. (4)
Anderson, James W.....623 N. West St. (2)
Anderson, Wendell C.
Indiana State Board of Health, 1330 W. Michigan St. (2)
Anshutz, William M.....Methodist Hospital (2)
Antreasian, Berj.....1303 N. Arlington Ave. (19)
Appel, Richard H.....320 Hume Mansur Bldg. (4)
Applegate, George W.....Methodist Hospital (2)
Arbogast, John L.....I.U. Medical Center (2)
Arbuckle, William E. (S)....1150 S. Sheffield (21)
Armer, Robert M.....3500 Lafayette Rd. (22)
Armstead, John W.....2140 N. Capitol Ave. (2)
Arnold, Aaron L.....6221 N. Keystone Ave. (20)
Arnold, Robert D.....5470 E. 16th St. (18)
Aronson, Sidney S...618 Hume Mansur Bldg. (4)
Assue, Clare M.....LaRue D. Carter Hospital (2)
Avery, George O.....17 S. Traub (22)

B

Baadj, Abdel G.....2809 S. Holt Rd. (41)
Bachmann, Arnold J.....3736 N. Delaware St. (5)
Bader, Joseph...Eli Lilly & Co., P. O. Box 618 (6)
Baird, Melvin S.....19 W. 22nd St. (2)
Bakemeier, Otto H. (S)
5503 E. Washington St. (19)
Bakemeier, Robert E.
1303 N. Arlington Ave. (19)
Baker, Charles R.....I.U. Medical Center (2)
Baker, John C.....American United Life Ins. Co.,
30 W. Fall Creek Parkway (6)
Balch, James F., Jr...709 Hume Mansur Bldg. (4)
Ball, Joseph E.....4312 E. 10th St. (1)
Banks, Horace M. (S)
3631 Forest Manor Ave. (18)
Baptisti, Arthur, Jr.
Marion Co. General Hospital (2)
Barden, Tom P.....I.U. Medical Center (2)
Barnes, Gilbert H.....5513 Hedgerow Dr. (26)
Bartle, James L.....6604 Hythe Rd. (20)
Bartley, Max D.....801 Hume Mansur Bldg. (4)
Bastnagel, William F...3602 N. Meridian St. (8)
Bates, Laurence H.....3524 N. Meridian St. (8)
Batman, Gordon W.....1815 N. Capitol Ave. (2)
Battersby, J. Stanley....I.U. Medical Center (2)
Batties, Paul A.....2142 N. Capitol Ave. (2)
Bauer, Thomas B....408 Hume Mansur Bldg. (4)
Baumeister, Herbert E...1815 N. Capitol Ave. (2)
Baxter, John P.....1633 N. Capitol Ave. (2)
Beach, Robert R.
5810 E. Pleasant Run Pkwy., N. Dr. (19)
Beaver, Howard W.....2930 Madison Ave. (25)
Bechtol, Lavon D.....Lilly Research Labs.,
P.O. Box 618 (6)
Beck, Evart M.....915 E. 38th St. (5)
Becker, Harry G.....6060 College Ave. (20)
Beeler, John W.....712 Hume Mansur Bldg. (4)
Beeler, Raymond C. (S)
3777 N. Meridian St. (8)
Belshaw, George.....1640 N. Ritter Ave. (18)
Belt, James H.....6225 Broadway (20)
Benedict, Paul F.....3949 Meadows Dr. (5)
Bennett, Ivan F.
Lilly Clinic, Marion Co. General Hospital (2)
Bennett, James E.....I.U. Medical Center (2)
Benson, J. Thomas
2948 Kessler Blvd., N. Dr. (22)
Berman, Edward J. ..920 Hume Mansur Bldg. (4)
Berman, Jacob K. (S)
920 Hume Mansur Bldg. (4)
Bernoske, Daniel G.
Indiana St. Board of Health,
1330 W. Michigan St. (2)
Berry, John M.....7841 White River Dr. (40)
Bhagwandin, Harry O.
4761 Southeastern Ave. (3)
Bibler, Lester D.....1815 N. Capitol Ave. (2)
Biegel, Angenieta A.....I. U. Medical Center (2)
Bill, Robert O.....3231 N. Meridian St. (8)
Black, Henry R...Marion Co. General Hospital (2)
Blackford, Florence.....5909 E. 10th St. (19)
Blackford, Ralph E. (S)....5909 E. 10th St. (19)
Blackwell, Donald S.....1815 N. Capitol Ave. (2)
Blake, Albert L.....1802 N. Illinois St. (2)
Blatt, A. Ebner.....3400 N. Meridian St. (8)
Bloemker, Edward F.....2729 Shelby St. (3)
Boggs, Eugene F.....8 E. Troy Ave. (25)
Boling, Frederick F.....3049 S. Holt Rd. (41)
Boling, Grover C.....1440 E. 46th St. (5)
Bolinger, Garry L.....512 Winona Village (2)
Bond, George S. (S)....1221 N. Delaware St. (2)
Bond, Virginia.....R. R. 17, Box 364 (54)
Bond, William H.....I. U. Medical Center (2)
Bonsett, Charles A.....6133 E. 54th Pl. (26)
Booher, Norman R.....447 E. 38th St. (5)
Booher, Olga Bonke.....447 E. 38th St. (5)
Booth, Boynton H....301 Hume Mansur Bldg. (4)
Boyer, Floyd A.....442 N. Drexel Ave. (1)
Brady, Thomas A.....1815 N. Capitol Ave. (2)
Brayton, Lee.....3930 N. Illinois St. (8)
Brickley, Harry D...605 Hume Mansur Bldg. (4)
Brickley, Richard A..605 Hume Mansur Bldg. (4)
Briggs, Robert W.....2140 N. Capitol (2)
Brillhart, James R.....1640 N. Ritter Ave. (18)
Brodie, Donald W.....817 C. of C. Bldg. (4)
Brooks, Fred R., Jr.....3349 Georgetown Rd. (24)
Brown, Archie E...4145 Melbourne Rd., W. Dr. (8)
Brown, David E.....1944 N. Capitol Ave. (2)
Brown, DeWitt W.....1633 N. Capitol Ave. (2)
Brown, Earl R., Jr.....Community Hospital (19)
Brown, Frances T. (S)..2126 N. Talbot Ave. (2)
Brown, Frank M.....2875 Clifton (23)
Brown, Gordon T.....3989 Meadows Drive (5)
Brown, Wendell E.....3426 N. Meridian St. (8)
Browning, James S.....3120 N. Meridian St. (8)
Brownley, E. Jane..2840 N. High School Rd. (24)
Bruce, Reginald A.....2515 E. 34th St. (18)
Brueckmann, F. Robert
1815 N. Capitol Ave. #401 (2)
Buehl, Isabelle A.....301 E. 38th St. (5)
Burdette, Harold F.....3202 N. Meridian St. (8)
Burghard, Rolla D.....Community Hospital (19)
Butler, John O.....234 E. Southern Ave. (25)
Butler, Robert M.....3426 N. Meridian St. (8)

C

Cadiente, Samson S.....3202 N. Meridian St. (8)
Cahn, Hugo M.....5535 N. Pennsylvania St. (20)
Cahn, Peter H.....818 Hume Mansur Bldg. (4)
Caldwell, Marilyn R.....111 E. 53rd St. (20)
Call, Herbert F.....1815 N. Capitol Ave. (2)
Calland, Sabra W...Marion Co. General Hosp. (2)
Campbell, H. Edwin, Jr...3500 Lafayette Rd. (22)
Campbell, John A.....I.U. Medical Center (2)
Campbell, Robert L.....1100 W. Michigan St. (2)
Caplin, Irvin.....1815 N. Capitol Ave. (2)
Caplin, Samuel S.
V.A. Hospital, 1481 W. 10th St. (2)
Caputi, Saverio.....3202 N. Meridian (8)
Carson, Wayne.....1802 N. Illinois St. (2)
Carter, James E.....I.U. Medical Center (2)
Chaney, Robert D.....I.U. Medical Center (2)
Chattin, William R.....4829 E. 38th St. (18)
Chavez, Mauro E.....5324 W. 16th St. (24)
Chen, Ko Kuei.....I. U. Medical Center (2)
Chernish, Stanley M.
Marion Co. General Hospital (2)
Chevalier, Robert B.....1802 N. Illinois (2)
Chivington, Paul V...707 Hume Mansur Bldg. (4)
Chroniak, Walter.....41 N. Shortridge Rd. (19)
Clark, Edward E..Marion Co. General Hospital (2)
Clark, George A.....19 W. 22nd St. (22)
Clark, Lawson J.....3736 N. Delaware St. (5)
Clevinger, William G...St. Vincent's Hospital (8)
Close, W. Donald.....I.U. Medical Center (2)
Coates, Jacqueline.....305 W. 42nd St. (8)
Cobb, Clarence M.....3202 N. Meridian St. (8)
Coggeshall, Warren E...3524 N. Meridian St. (8)
Collins, Hubert L.....985 N. Arlington Ave. (19)
Collins, Robert C.....1356 W. 21st St. (2)
Conley, Joseph L. (S).....405 E. 52nd St. (5)
Conway, Chester C.....4402 E. New York St. (1)
Conway, Glenn.....1620 S. East St. (25)
Cooke, J. Kenneth.....1919 E. 52nd St. (5)
Cookson, Lawrence U...3400 N. Meridian St. (8)
Cornacchione, Matthew.....814 S. East St. (25)
Cortese, James V.....3901 S. East St. (27)
Cortese, Thomas A.....3901 S. East St. (27)
Cortese, Thomas A., Jr.....I.U. Medical Center (2)
Costin, Robert L.....301 E. 38th St. (5)
Coughenour, J. Robert
534 Turtle Creek, N. Dr. (27)
Countryman, Frank W...1815 N. Capitol Ave. (2)
Craft, Kenneth L. (S)
1002 Hume Mansur Bldg. (4)
Craig, Alexander F.....5350 E. 38th St. (18)
Crawford, John A...321 Hume Mansur Bldg. (4)
Cronin, H. Joseph.....3400 N. Meridian St. (5)

Cross, David G.....1002 Troy Ave. (3)
Crossin, James A.....Methodist Hospital (2)
Culbertson, Clyde G.
Eli Lilly & Co., 740 S. Alabama St. (6)
Cullen, P. Kent, Jr.....310-11 Hume Mansur Bldg. (4)
Cumming, James R.....Methodist Hospital (2)
Cunningham, Gene C.
Eli Lilly & Co., 740 S. Alabama St. (6)
Cure, Charles W.....1815 N. Capitol Ave. (2)
Currie, Robert W.....512 E. 57th St. (20)
Curry, R. Louis.....5705 E. 38th St. (18)
Cusick, James A.....3400 N. Meridian St. (8)
Cuthbert, Marvin P.....3400 N. Meridian St. (8)
Czenkusch, Helen G.....2840 High School Rd. (24)

D

Daley, Edward H.....5350 E. 38th St. (18)
Dallas, Fred R.....1640 N. Ritter Ave. (18)
Dallas, Mary E.
V.A. Hospital, 1481 W. 10th St. (2)
Dalton, William W.
Chrysler Corp., 2900 Shadeland Ave. (19)
Daly, Joseph M.....234 E. Southern Ave. (25)
Darbro, David A.....2307 E. Raymond St. (3)
Davidson, Dale A.....1815 N. Capitol Ave. (2)
Davidson, N. Cort.....3233 N. Meridian St. (8)
Davis, Bennie L.....2615 N. Capitol Ave. (8)
Davis, Margaret M.....2603 W. 42nd St. (8)
Davis, Sam J.....908 Hume Mansur Bldg. (4)
Deal, Eleanor H.....4819 W. 15th St. (24)
Dearmin, Robert M.....3233 N. Meridian St. (8)
DeArmond, Murray.....1815 N. Capitol Ave. (2)
DeBrota, John, Jr.....3202 N. Meridian St. (8)
Decatur, David R.....1303 N. Arlington Ave. (19)
Deever, John W.....4131 Shelby St. (27)
Deitch, Robert D.....6305 Douglas Rd. (20)
Dennison, Alfred D., Jr...1815 N. Capitol Ave. (2)
Denny, Forrest L.....3351 W. 10th St. (22)
Denny, James W.....25 N. Ritter Ave. (19)
DeWees, Dwight L.....302 N. Bradley Ave. (1)
DeWester, Gerald M.....3037 S. Meridian St. (27)
Dickson, Carolyn L.....501 N. West St. (2)
Dill, Myron K.....3120 N. Meridian St. (8)
Dillon, John F.....Methodist Hospital (2)
Dilts, Robert L.....2521 E. 38th St. (18)
Dino, Florian S.....5202 N. Illinois St. (8)
Dintaman, Paul G...703 Hume Mansur Bldg. (4)
Dolan, Patrick A.....Methodist Hospital (2)
Donahue, James M.....1815 N. Capital Ave. (2)
Donato, Albert M.....1429 Shelby St. (3)
Doran, J. Hal.....620 Hume Mansur Bldg. (4)
Doughty, Samuel R., Jr.....5350 E. 38th St. (18)
Douglas, William T.....3202 N. Meridian St. (8)
Dowd, Joseph A.....Butler University Health Center, 4600 Sunset Ave. (8)
Dryden, Gale E.....5835 N. Tacoma (20)
Dugan, William M., Jr.
Marion Co. General Hospital (2)
Duncan, Stuart J.....3037 S. Meridian St. (27)
Duncan, William A.....1221 E. 86th St. (40)
Dunkin, Ramon S.....3202 N. Meridian St. (8)
Dyar, Edwin W.....1010 E. 86th St. (40)
Dyar, Robert W.....1010 E. 86th St. (40)
Dyke, Richard W..Marion Co. General Hospital (2)
Dyken, Mark L.....I. U. Medical Center (2)
Dyken, Paul R.....I. U. Medical Center (2)

E

Earp, Evanson B.....3368 Washington Blvd. (5)
Eastman, Joseph R., Jr.....220 W. 64th St. (60)
Eaton, Edwin R.....Community Hospital (19)
Eaton, Lyman D.....5505 N. Keystone Ave. (20)
Ebert, J. Wayne (S)....1125 Southview Dr. (27)
Echt, Charles R.....I.U.Medical Center (2)
Edwards, Judith Ann.....I.U. Medical Center (2)
Edwards, Wendell L.....Methodist Hospital (2)
Egbert, Herbert L.....5317 E. 16th St. (18)
Eicher, Palmer O.....3400 N. Meridian St. (8)
Eldridge, Gail E.....1440 E. 46th St. (5)
Elkins, James P.....234 E. Southern Ave. (25)
Ellis, Charles R.....Methodist Hospital (2)
Ellis, William N.....1640 N. Ritter Ave. (18)
Emhardt, John T.....1628 S. East St. (25)
Emhardt, John W. A. (S)
5424 Washington Blvd. (20)
Evans, Frederick H.....2140 N. Capitol (2)
Evans, Paul V.....Methodist Hospital (2)
Everly, Ralph V.....668 E. 38th St. (5)

F

Failey, Robert B., Jr.....I.U. Medical Center (2)
Farrell, Joseph T.....2807 E. Michigan St. (1)
Fausset, C. Basil.. ....1815 N. Capitol Ave. (2)
Fechtman, William F.
5429 N. New Jersey St. (20)
Feeney, Martin T...532 Turtle Creek, N. Dr. (27)
Ferry, Francis A.....1638 E. Raymond St. (3)
Finneran, Joseph C.....1802 N. Illinois St. (2)
Fisch, Charles.....I.U. Medical Center (2)
Fischer, A. Alan.....3500 Lafayette Rd. (22)
Fisher, William P.....I.U. Medical Center (2)
Fitzgerald, William J.
303 Fountain Square Theatre Bldg. (3)
Flanagan, Paul M.....3440 N. Meridian St. (8)
Flanders, Robert, Jr.....3202 N. Meridian St. (8)
Flanigan, Meredith B.....3305 Rutledge (8)
Fleischl, Herbert....Central State Hospital (22)
Flick, John J.....668 E. 38th St. (5)
Flora, Joseph O.....4317 W. Washington St. (41)
Folkening, Norval C...234 E. Southern Ave. (25)
Fosgate, Harold L.....4301 E. 38th St. (18)
Foster, Lee N.....St. Vincent's Hospital (8)
Foster, Ray D.....1944 N. Capitol Ave. (2)
Fouts, Paul J.....623 Hume Mansur Bldg. (4)
Franklin, William L..508 Hume Mansur Bldg. (4)
Freed, Carl A.....2948 Kessler Blvd., N. Dr. (22)
Freeman, Leslie W.....I.U. Medical Center (2)
French, Richard N.....LaRue D. Carter Hosp. (2)
Fromhold, Willis A.....510 Willard Ave. (27)
Fry, Robert D.....607 Hume Mansur Bldg. (4)
Fulton, William H.....1633 N. Capitol Ave. (2)
Fundenberger, Martin.....2815 E. 38th St. (18)

G

Gabovitch, Edward R.....1815 N. Capitol Ave. (2)
Gabrielsen, Ted H.....Methodist Hospital (2)
Gaddy, Euclid T. (S)
2602 W. Washington St. (22)
Gaddy, Nelson D.....3500 Lafayette Rd. (22)
Gambill, William D.....1633 N. Capitol Ave. (2)
Gammieri, Robert L.....661 E. 49th St. (5)
Garceau, George J. (S)
508 Hume Mansur Bldg. (4)
Garber, J. Neill.....1815 N. Capitol Ave. (2)
Gard, Daniel A.....1915 N. Capitol Ave. (2)
Gardiner, Sprague H.....I.U. Medical Center (2)
Gardner, Austin L.....3400 N. Meridian St. (8)
Gardiner, Buckman....St. Vincent's Hospital (8)
Garfield, Martin D.....3705 College Ave. (5)
Garner, W. Stanley.....2704 E. 62nd St. (20)
Garrett, Robert A.....I.U. Medical Center (2)
Gaurano, Lauro M. .....5202 N. Illinois St. (8)
Geider, Roy A.....1525 Prospect St. (3)
Geisler, Hans E.....I.U. Medical Center (2)
George, Charles L.....1121 E. 80th St. (40)
Gerth, Robert E.....Methodist Hospital (2)
Gibson, Greta Maxine
5744 Broadway Terrace (20)
Gick, Herman H. (S)..2705 E. Michigan St. (1)
Gifford, J. Dean.....Methodist Hospital (2)
Gillespie, Charles F.....3400 N. Meridian St. (8)
Gillespie, Jacob E...523 Hume Mansur Bldg. (4)
Gilliland, John E.....Methodist Hospital (2)
Gillim, Parvin D.....315 Hume Mansur Bldg. (4)
Girod, Donald A.....I.U. Medical Center (2)
Glendening, John L. (S)
7202 N. Meridian St. (60)
Glover, John L.....4124 Sunmeadow Lane (8)

Goldman, Samuel...2117 W. Washington St. (22)
Gormley, Joseph J.....2372 Lafayette Rd. (22)
Gosman, James H.....1815 N. Capitol Ave. (2)
Graham, Edward W.
V.A. Hospital, 1481 W. 10th St. (2)
Graham, John D.....1802 N. Illinois St. (2)
Graham, William E.....3440 N Meridian St. (8)
Gray, Howard R.....301 Hume Mansur Bldg. (4)
Gray, Kenneth L...2727 N. High School Rd. (24)
Grayson, Merrill.....I.U. Medical Center (2)
Grayson, Ted L.....1815 N. Capitol Ave. (2)
Green, Joseph B.....I.U. Medical Center (2)
Green, Morris.....Riley Hospital (2)
Greene, Morgan E.
Marion Co. General Hospital (2)
Gregory, Robert L.....1743 Shelby St. (3)
Greist, John H.....3231 N. Meridian St. (8)
Grief, James V.....5831 E. Washington St. (19)
Grief, Robert S.....2307 S. Raymond St. (3)
Griffin, Leslie W...Allison Div., General Motors (6)
Griffith, Richard S.
Lilly Clinic, Marion Co. General Hospital (2)
Griffith, Ross E.....1802 N. Illinois St. (2)
Grimes, Hubert N.....5516 E. 21st St. (18)
Grisell, Ted L.....5317 East 16th St. (18)
Grosz, Hanus J.....I.U. Medical Center (2)
Gruber, Charles M.
Lilly Clinic, Marion Co. General Hospital (2)

H

Habegger, Elmer D.....1815 N. Capitol Ave. (2)
Hackney, Victor C.....I.U. Medical Center (2)
Hadley, David .....702 Hume Mansur Bldg. (4)
Haggard, Edmund B.....932 Illinois Bldg. (4)
Hall, Jack H.....Methodist Hospital (2)
Hamer, Homer G. (S)..1711 N. Capitol Ave. (2)
Hamilton, Howard B...901 S. Emerson Ave. (3)
Hampshire, Donald R.
1443 N. Pennsylvania St. (2)
Hancock, John G.....2226 W. Michigan St. (22)
Hann, Eldon C.....1633 N. Capitol Ave. (2)
Hanna, Thomas A.....1608 N. Lynhurst Dr. (24)
Harcourt, Allan K.....1919 N. Capitol Ave. (2)
Harcourt, Robert S.....1915 N. Capitol Ave. (2)
Harding, M. Richard.....3949 Meadows Dr. (5)
Harding, Myron S. (S)....3949 Meadows Dr. (5)
Hare, Earl H. (S)
Indiana State Board of Health,
1330 W. Michigan St. (2)
Hare, Laura.....404 Hume Mansur Bldg. (4)
Harger, Robert W... 804 Hume Mansur Bldg. (4)
Harris, Carl B. ....319 Hume Mansur Bldg. (4)
Harris, James C.....1010 E. 86th St. (40)
Hartenbower, David L.....Methodist Hospital (2)
Harvey, Hathaway K.....I.U. Medical Center (2)
Harvey, Verne K., Jr.
Indiana State Board of Health,
1330 W. Michigan St. (2)
Hatfield, Nicholas W.....5851 E. 54th Pl. (26)
Haughn, James E.
Marion Co. General Hospital (2)
Hawk, James H.....1330 W. Michigan St. (2)
Hawthorne, James J.....3901 N. Meridian St. (8)
Haymond, Joseph L.....301 E. 38th St. (5)
Haynes, John T.....1815 N. Capitol Ave. (2)
Healey, Robert J.....3602 N. Meridian St. (8)
Hedrick, Philip W.....1221 E. 86th St. (40)
Heimburger, Robert F....I.U. Medical Center (2)
Helmen, Charles H.....I.U. Medical Center (2)
Helveston, Eugene M.....1100 W. Michigan (2)
Henderson, Francis G.
Marion Co. General Hospital (2)
Henderson, Roscoe C.....418 E. 30th St. (5)
Hendricks, Fred A....6917 N. Keystone Ave. (20)
Hendricks, John W...911 Hume Mansur Bldg. (4)
Henry, Russell S.....4367 Lincoln Rd. (8)
Hepburn, C. K.....1633 N. Capitol Ave. (2)
Heubi, John E.....668 E. 38th St. (5)
Hibbeln, Thomas J.....Methodist Hospital (2)
Hickam, John B.....I.U. Medical Center (2)
Hickman, Jack W.
Marion Co. General Hospital (2)
Hicks, Murwyn L.....5350 E. 38th St. (18)
Hicks, Wilbur P.....1404 W. 58th St. (8)
Hildebrand, William L..2963 N. Sherman Dr. (18)
Hill, Herbert N.....3500 Lafayette Rd. (22)
Hill, James K.....3500 Lafayette Rd. (22)
Hilz, James M.....3901 S. East St. (27)
Himelstein, N. Harvey...3500 Lafayette Rd. (22)
Himler, James M.
445 N. Pennsylvania St., #809 (4)
Hoffman, Herman.....650 E. 38th St. (5)
Hofmann, J. William (S)
8360 Washington Blvd. (40)
Hogan, Michael A.....6214 Broadway (20)
Holland, William M.....3524 N. Meridian St. (8)
Holman, Jerome E., Jr.....3315 E. 10th St. (1)
Holman, Jerome E., Sr. (S)
4503 E. Kessler Blvd. (20)
Hood, Ainslee A.....910 Markwood Ave. (27)
Hoog, John M.....Methodist Hospital (2)
Hopkins, Bruce J.....3120 N. Meridian St. (8)
Horwitz, Thomas....421 Hume Mansur Bldg. (4)
Howell, Arthur..Marion Co. General Hospital (2)
Howell, Joseph D...760 Bankers Trust Bldg. (4)
Hoyt, Lester H.....Methodist Hospital (2)
Hoyt, Millard L.....5506 E. 16th St. (18)
Hubbard, Jesse D.....I.U. Medical Center (2)
Huber, Carl P.....I.U. Medical Center (2)
Hull, Ronald H.....1815 N. Capitol Ave. (2)
Hummons, Francis D.
2229 Northwestern Ave. (23)
Hunneshagen, Donald E....Methodist Hospital (2)
Hurteau, William W.....Methodist Hospital (2)
Huse, William M.....1815 N. Capitol Ave. (2)
Hutson, Richard A.....I.U. Medical Center (2)

I

Ing, Frederic Y. W.....I.U. Medical Center (2)
Irvine, William O.....1815 N. Capitol Ave. (2)
Irwin, Glenn W., Jr.....I.U. Medical Center (2)
Iske, Paul G.....1919 N. Capitol Ave. (2)

J

Jackson, James W. (S).....463 W. 32nd St. (8)
James, Charles E.....6939 N. Michigan Rd. (68)
Janicki, Robert S.
Pitman-Moore Co., P.O. Box 1656 (6)
Jaquith, Orville S. (S) ..261 Blue Ridge Rd. (8)
Jay, Arthur C.....Methodist Hospital (2)
Jay, Arthur N.....815 W. 46th St. (60)
Jay, James M.....1633 N. Capitol Ave. (2)
Jenkins, John E., Jr.....I.U. Medical Center (2)
Jenkins, Robert E.....3440 N. Meridian St. (8)
Jennings, Frank L. (S) .....60 Meridian Pl. (5)
Jestadt, John J.....3202 N. Meridian St. (8)
Jewett, Joe H.....3120 N. Meridian St. (8)
Jobes, James E.....54 Monument Circle, #510 (4)
Johnson, A. Cedric, Jr...1815 N. Capitol Ave. (2)
Johnson, Earl H.....1802 N. Illinois St. (2)
Johnson, Thomas W.....1802 N. Illinois St. (2)
Jones, Allen W.....6060 College Ave. (20)
Jones, David E.....828 C. of C. Bldg. (4)
Jones, Francis P.....4212 E. Michigan St. (1)
Jones, George L.....8933 Southeastern Ave. (19)
Jones, John D.....I.U. Medical Center (2)
Jones, Gordon C.....1517 N. Emerson (19)
Jones, Richard A.....I.U. Medical Center (2)
Jontz, Jon P.....5350 E. 38th St. (18)
Joseph, Rex M.....59 E. Troy Ave. (25)
Jowitt, Richard H.....1502 N. Emerson (19)
Joyner, John E...3901 N. Meridian St., #336 (8)
Judd, Russell L.....1303 N. Arlington Ave. (19)
Judson, Walter E.....I.U. Medical Center (2)

K

Kahler, Maurice V. (S)...2638 Kessler Blvd. (22)
Kahn, Alexander J.....3120 N. Meridian St. (8)
Kahn, Howard L.....3120 N. Meridian St. (8)

Kaiser, James L.....1815 N. Capitol Ave. (2)
Kalsbeck, John E.....I.U. Medical Center (2)
Kammen, Leo.....3202 W. 16th St. (22)
Karsell, William A.....3989 Meadows Dr. (5)
Katterjohn, James C..313 Hume Mansur Bldg. (4)
Kebel, Arthur P.....4456 N. Keystone Ave. (5)
Keenan, George B.....3225 Shelby St. (27)
Keever, Charles H. (S)....5214 College Ave. (20)
Kelly, Don E...445 N. Pennsylvania St., #702 (4)
Kendall, William R.....3202 N. Meridian St. (8)
Kennedy, Hunter F.....1229 Prospect St. (3)
Kennedy, Joseph T.....5350 E. 38th St. (18)
Kenney, David B.....5506 E. 16th St. (18)
Kenzler, Jack I.....205 Hume Mansur Bldg. (4)
Kerner, Donald J.....Methodist Hospital (2)
Kerr, Harry R. (S)..5774 Washington Blvd. (20)
Ketcham, Jane M. (S).....3906 Ruckle St. (5)
Kimble, John W.....3400 N. Meridian St. (8)
King, Harold.....I.U. Medical Center (2)
King, Robert D.....I.U. Medical Center (2)
Kingsbury, John K. (S)
5462 E. Washington St. (19)
Kirkhoff, Paul J.....5317 E. 16th St. (18)
Kirtley, William R.
Eli Lilly & Co., 740 S. Alabama St. (6)
Kissel, Wesley A.....1815 N. Capitol Ave. (2)
Kitterman, Harry E.....703 State Office Bldg. (4)
Klain, Benjamin V.....4157 College Ave. (5)
Klutinoty, George II....3500 Lafayette Rd. (22)
Kneidel, John H.....5324 W. 16th St. (24)
Kohlstaedt, Karl C.
Eli Lilly & Co., 740 S. Alabama St. (6)
Kohlstaedt, Kenneth G.
Eli Lilly & Co., 740 S. Alabama St. (6)
Kooiker, John E.....1815 N. Capitol Ave. (2)
Koons, Karl M., Jr...923 Hume Mansur Bldg. (4)
Koons, Karl M. (S)..923 Hume Mansur Bldg. (4)
Kopecky, Robert R.....4131 Shelby St. (27)
Kornafel, L. H.....905 Hume Mansur Bldg. (4)
Kraft, Bennett.....760 Bankers Trust Bldg. (4)
Kramer, Paul W.....I.U. Medical Center (2)
Kremp, Richard E.....6939 N. Michigan Rd. (68)
Kriel, William B.....5630 W. Washington St. (41)
Krueger, Thomas P.....1815 N. Capitol Ave. (2)
Kuntz, Herman W...611 Hume Mansur Bldg. (4)
Kurlander, Gerald J.....I.U. Medical Center (2)
Kurtz, Fred B. (S).....5520 N. Illinois St. (8)
Kurtz, Philip L.
Eli Lilly & Co., 740 S. Alabama St. (6)
Kwitny, Isadore J.....3400 N. Meridian St. (8)

L

LaDine, Clarence B.....2508 Station St. (18)
Lamb, Emmett B.....205 Hume Mansur Bldg. (4)
Lamb, Russell W.....205 Hume Mansur Bldg. (4)
Lamber, Chet K.....914 Hume Mansur Bldg. (4)
Lamkin, E. Henry, Jr....1815 N. Capitol Ave. (2)
Landwehr, Alfons.....5217 Leon Pl. (26)
Lane, C. Elaine.....2840 N. High School (24)
Lang, Jay W.....5350 E. 38th St. (18)
Largaespada, Manuel.....549 S. Fleming (41)
Lashmet, Michael H..419 Hume Mansur Bldg. (4)
Lasich, Anthony R.....1815 N. Capitol Ave. (2)
Lawrence, James M.....3500 Lafayette Rd. (22)
Lawson, Allan J.....1010 E. 86th St. (40)
Leasure, J. Kent (S).....5823 Brockton Dr. (20)
Leatherman, Harter L. (S)..1502 E. 46th St. (5)
Leffel, James M.....1633 N. Capitol Ave. (2)
Leffler, William T.....2141 E. 52nd St. (5)
Lehman, Evan L.....5929 Carvel (20)
Leipold, Jon D.....5920 Price Lane (54)
LeMaster, Theodore R.
800 Hume Mansur Bldg. (4)
Leser, Ralph U.....3901 N. Meridian St. (8)
Levi, Leon.....40 W. 38th St. (8)
Lewis, Earl.....112 S. Ridgeview (19)
Lewis, Paul S.....6357 Rockville Rd. (24)
Lichtenberg, Melvin.....535 E. 38th St. (5)
Lidikay, Edward C.....3989 Meadows Dr. (5)
Lindenborg, Paul G..3016 N. Arlington Ave. (18)
Lindseth, Richard E.....I.U. Medical Center (2)
Lingeman, Raleigh E....1944 N. Capitol Ave. (2)
Link, Goethe (S).....401 N. Illinois St. (4)
Littlefield, Paul A.
4040 Crooked Creek Overlook (8)
Littlefield, Shirley D.....1815 N. Capitol Ave. (2)
Lloyd, Frank P.....Methodist Hospital (2)
Lodde, Marvin B.....I.U. Medical Center (2)
Loehr, William M.....I.U. Medical Center (2)
Logan, Patrick C.
Marion Co. General Hospital (2)
Long, Malcolm D.....7605 Westfield Blvd. (40)
Loomis, Norman S.....5416 E. 81st St. (50)
Lord, Glenn C.....104 E. 38th St. (5)
Lord, Thomas J.....3242 N. Meridian St. (8)
LoSasso, Alvin M.....1100 W. Michigan (2)
Louden, Robert W.....1221 E. 86th St. (40)
Love, George N.....5331 Washington Blvd. (20)
Lowe, John C.....1303 N. Arlington Ave. (19)
Lozow, David.....3949 Meadows Dr. (5)
Lucas, Clarence A., Jr....2012 Boulevard Pl. (2)
Luginbill, Howard M.....5470 E. 16th St. (18)
Lukemeyer, George T....I.U. Medical Center (2)
Lunsford, Thomas E....1815 N. Capitol Ave. (2)
Luros, J. Theodore.....1633 N. Capitol Ave. (2)
Lybrook, William B.....1564 N. Downey Ave. (19)
Lynch, William A.....St. Vincent's Hospital (8)
Lynn, Gene E.....1815 N. Capitol Ave. (2)

M

MacDougall, John D.....3949 Meadows Dr. (5)
McAlpine, Richard J..5704 N. Keystone Ave. (20)
McAree, Francis E., Jr.....5470 E. 16th St. (18)
McBride, James S. (S).....720 E. 80th St. (40)
McCallum, Donald C.....1815 N. Capitol Ave. (2)
McCallum, Joseph T. C. (S)..237 W. 46th St. (8)
McCallum, Robert N.....1815 N. Capitol Ave. (2)
McCarthy, Daniel F., Jr.
1303 N. Arlington Ave.(19)
McCartney, Donald H.
1021 Hume Mansur Bldg. (4)
McClain, Edwin S.....3500 Lafayette Rd. (22)
McCormick, Charles O., Jr..3989 Meadows Dr. (5)
McDaniel, Edwin C.....1815 N. Capitol Ave. (2)
McDougal, Robert A.....3202 N. Meridian St. (8)
McElroy, James T.....1635 Nashua Ct. (60)
McGrath, Michael F.....1929 E. 38th St. (18)
McIntyre, Charles J. (S).3930 Carrollton Ave. (5)
McIntyre, James M.....1815 N. Capitol Ave. (2)
McKinley, A. David.....I.U. Medical Center (2)
McLaren, Daniel E.....6000 E. 46th St. (26)
McQuiston, Ralph J.....608 Guaranty Bldg. (4)
McTurnan, Robert W.....5646 N. Illinois St. (8)
Mackey, John E.....3400 N. Meridian St. (8)
Madden, Robert J.....1420 N. Audubon Rd. (19)
Madtson, A. Ricks.1815 N. Capitol Ave. #307 (2)
Malloy, Francis E., Jr.....5350 E. 38th St. (18)
Manders, Karl L.....5506 E. 16th St. (18)
Manion, Marlow W...601 Hume Mansur Bldg. (4)
Mann, Mortimer.....3426 N. Meridian St. (8)
Manning, K. Randolph..1815 N. Capitol Ave. (2)
Manzie, Michael W.....3500 Lafayette Rd. (22)
Marks, John S., Jr.....5506 E. 16th St. (18)
Marsh, Carl M.....101 N. Shortridge Rd. (19)
Marshall, Albert L., Jr.
Indiana State Board of Health,
1330 W. Michigan St. (2)
Marshall, Cavins R. (S) .....43 W. 30th St. (8)
Martin, Hugh E.
Pitman-Moore Co., 1200 Madison Ave. (6)
Martin, Loren H....2626 W. Washington St. (22)
Martz, Bill L.
Lilly Clinic, Marion Co. General Hospital (2)
Martz, Carl D.....912 Hume Mansur Bldg. (4)
Marvel, Robert J.....3426 N. Meridian St. (8)
Masters, John M.....805 Hume Mansur Bldg. (4)
Masters, Robert J. (S)
805 Hume Mansur Bldg. (4)

Matthew, W. Burleigh....518 Hume Mansur Bldg. (4)
Matthews, Bernard J....966 N. Graham Ave. (19)
Matthews, William M.....I.U. Medical Center (2)
Maxam, B. T.....3524 N. Meridian St. (8)
Maxwell, Sam B.....Eli Lilly & Co., P. O. Box 618 (6)
Mealey, John, Jr.....I.U. Medical Center (2)
Megenhardt, Dennis S..1633 N. Capitol Ave. (2)
Meiks, Lyman T.....4205 N. Pennsylvania St. (5)
Melin, John R.....1815 N. Capitol Ave. (2)
Mentendiek, Maurice H. 141 Buckingham Dr. (8)
Mericle, Earl W.....1633 N. Capitol Ave. (2)
Merritt, A. Donald.....I.U. Medical Center (2)
Mershon, Jack B.....3855 E. 10th St. (1)
Mertz, John H. O.....1711 N. Capitol Ave. (2)
Michael, Isaac E...2948 Kessler Blvd., N. Dr. (22)
Middleton, Harvey N. (S) 1828 N. Illinois St. (2)
Millan, Felix....Marion Co. General Hospital (2)
Miller, Frank H.....5506 E. 16th St. (18)
Miller, Jerry A.....3202 N. Meridian St. (8)
Miller, Jerry R.....I.U. Medical Center (2)
Miller, John D...Marion Co. General Hospital (2)
Miller, L. Hoyt.....6000 E. 46th St. (26)
Miller, Roscoe E.....I.U. Medical Center (2)
Mitchell, George H...6049 E. Washington St. (19)
Moak, Glenn D.....712 Hume Mansur Bldg. (4)
Moe, John F.....Methodist Hospital (2)
Moore, Donald F....LaRue D. Carter Hospital (2)
Moore, Harold T.....1815 N. Capitol Ave. (2)
Moores, William B. Marion Co. General Hospital (2)
Moran, Thomas E.....7210 Madison Ave. (27)
Morchan, Samuel....6221 N. Keystone Ave. (20)
Morgan, Margaret E....3400 N. Meridian St. (8)
Moriarty, John R.....5602 Madison Ave. (27)
Morrison, Lewis E...603 Hume Mansur Bldg. (4)
Morton, Joseph L.....St. Vincent's Hosp. (8)
Morton, Philip M.....1315 W. 10th St. (2)
Morton, Walter P. (S) 3434 Fall Creek Blvd. (5)
Moss, Bobby L.....5316 E. 16th St. (18)
Moss, Harlan B.....1640 N. Ritter Ave. (18)
Moss, Herschel C.....1640 N. Ritter Ave. (18)
Mothersill, Mark H. (S)....3650 College Ave. (5)
Mouser, Robert W.....6201 Park Ave. (20)
Mullen, James B.....3120 N. Meridian St. (8)
Muller, Lullus P.....3120 N. Meridian St. (8)
Muller, Paul F.....3440 N. Meridian St. (8)
Muller, Victor H.....2128 N. Meridian St. (2)
Murphy, Mary M.....1633 N. Capitol Ave. (2)
Murray, Raymond H.....1100 W. Michigan St. (2)
Myers, Charles W. (S)..R. R. 18, Box 256 (24)

N

Nagan, Robert F.....606 Hume Mansur Bldg. (4)
Nasser, William K.....I.U. Medical Center (2)
Nay, Richard M.....3524 N. Meridian St. (8)
Need, David J.....7210 Madison Ave. (27)
Need, Louis T.....1927 S. Meridian St. (25)
Need, Richard L.....234 E. Southern Ave. (25)
Nester, Henry G.....1841 City-County Bldg. (4)
Newman, Daniel M.....1711 N. Capitol Ave. (2)
Nicholas, Dennis J.....4365 Wexford (26)
Nichols, William F. Marion Co. General Hosp. (2)
Nie, Louis W.....3231 N. Meridian St. (8)
Nohl, John M.....457 N. Emerson Ave. (19)
Nolin, Richard T.....10447 N. College Ave. (80)
Nolting, Henry F. (S)..155 W. Hampton Dr. (8)
Norman, William H...908 Hume Mansur Bldg. (4)
Norris, Max S.....510 Hume Mansur Bldg. (4)
Nourse, Myron H..... 1711 N. Capitol Ave. (2)
Nugent, Edwin J.....6840 N. Delaware St. (20)
Nurnberger, John I.....I.U. Medical Center (2)

O

O'Brian, Earl J.....3500 Lafayette Rd. (22)
Ochsner, Harold C.....3440 N. Meridian St. (8)
O'Connell, Noreen M. V.A. Hospital, 1481 W. 10th St. (2)
Offutt, Andrew C...Indiana State Board of Health, 1330 W. Michigan St. (2)
Olvey, Ottis N.....3231 N. Meridian St. (8)
Otten, Claude F.....812 C. of C. Bldg. (4)
Overley, Ross A.....1815 N. Capitol Ave. (2)
Overley, Toner M., Jr.....I.U. Medical Center (2)
Owen, John E.....605 Hume Mansur Bldg. (4)
Owens, Tracy C.....2823 N. Meridian St. (8)

P

Palmer, Robert M.....I.U. Medical Center (2)
Palmer, Robert W.....5398 Hillside Ave. (20)
Pantzer, John G., Jr...1815 N. Capitol Ave. (2)
Parker, George F., Jr..1502 N. Emerson Ave. (19)
Parker, John F.....6508 E. Washington St. (19)
Parker, Portia.....2226 W. Michigan St. (22)
Parks, Herbert E.....1641 N. Priscilla Ave. (18)
Parr, Robert L.....3043 E. 38th St. (18)
Paulissen, George T.....741 Markwood Ave. (27)
Pauszek, Robert B....2723 Constellation Dr. (29)
Paz, Juan A.....6049 E. Washington St. (19)
Pearson, John S...American United Life Ins. Co., 30 W. Fall Creek Parkway (6)
Peck, Franklin B., Jr. Lilly Clinic, Marion Co. General Hospital (2)
Peck, Franklin B., Sr.....5833 Brockton Dr. (20)
Peirce, James D. Eli Lilly & Co., 740 S. Alabama St. (6)
Perez, Helio C.....1315 W. 10th St. (2)
Petranoff, Theodore V. (S) 515 N. Tibbs Ave. (22)
Petty, Charles S.....I.U. Medical Center (2)
Pfaff, Dudley A. (S) 3602 Central Ave., Apt. A-3 (5)
Phillips, David L.....3400 N. Meridian St. (8)
Pickett, Robert D.....3524 N. Meridian St. (8)
Pierce, Raymond O., Jr.....3151 N. Illinois St. (8)
Pilcher, Jack E.....1802 N. Illinois St. (2)
Pile, Stafford W., Jr.....1802 N. Illinois St. (2)
Pittman, John N.....1815 N. Capitol Ave. (2)
Pontius, Edwin E.....Methodist Hospital (2)
Popplewell, Arvine G. Marion Co. General Hospital (2)
Porter, Robert A.....6856 Chaucer Ct. (20)
Powell, Richard C.....I.U. Medical Center (2)
Pribble, Robert H.....Community Hospital (19)
Price, Francis W. Eli Lilly & Co., P. O. Box 618 (6)
Price, James O.....512 Hume Mansur Bldg. (4)
Pryor, Richard C.....6111 College Ave. (20)

Q

Quigley, Joseph B.....5506 E. 16th St. (19)

R

Rabb, Frank M.....3740 Central Ave. (5)
Raber, Robert M.....1633 N. Capitol Ave. (2)
Rader, George S.....1815 N. Capitol Ave. (2)
Rafalski, Thomas A.....3120 N. Meridian St. (8)
Ragan, William D.....3400 N. Meridian St. (8)
Ramirez, Efren A.....2422 Station St. (18)
Ramsey, Frank B.....1802 N. Illinois St. (2)
Rapp, George F.....508 Hume Mansur Bldg. (4)
Rawls, George H.....3151 N. Illinois St. (8)
Reed, Philip B.....1815 N. Capitol Ave. (2)
Reed, Thomas E.....1303 N. Arlington Ave. (19)
Rees, Russel C.....6114 E. Washington St. (19)
Reid, Charles A.....2445 Shelby St. (3)
Reitz, Lawrence A....340 White River Pkwy. (22)
Rhea, Kenneth E.....I.U. Medical Center (2)
Rice, Frederic A., Jr.....7017 Pendleton Pike (26)
Rice, Raymond D.....1010 E. 86th St. (40)
Rice, Raymond M.....7799 E. Holliday Dr. (60)
Rice, Ronald B.....1010 E. 86th St. (40)
Rich, Richard B...822 Hume Mansur Bldg. (4)
Richter, Arthur B...720 Hume Mansur Bldg. (4)

Ridolfo, Anthony S.
Lilly Clinic, Marion Co. General Hospital (2)
Riner, Jack K.....5317 E. 16th St. (18)
Ritchey, James O.....608 Hume Mansur Bldg. (4)
Ritter, Wayne L.....404 Hume Mansur Bldg. (4)
Robb, John A.....238 Hume Mansur Bldg. (4)
Robertson, Ray B. (S)
6118 E. Washington St. (19)
Robinson, Earle U., Jr....2416 N. Capitol Ave. (8)
Rochlin, Isidore.....3202 N. Meridian St. (8)
Roesch, Ryland P.....5439 Shorewood Dr. (20)
Roeske, Nancy A..6815 N. Pennsylvania St. (20)
Rogers, Donald L.....3426 N. Meridian St. (8)
Rohn, Robert J.....I.U. Medical Center (2)
Roller, Charles W. (S).....915 Hervey (3)
Romberger, Floyd T., Jr. 3400 N. Meridian St. (8)
Rosenak, Bernard D.....1815 N. Capitol Ave. (2)
Rosenbaum, Irving, Jr. .....401 E. 34th St. (5)
Rosenberg, Gabriel J.....Methodist Hospital (2)
Ross, Alexander T.....I.U. Medical Center (2)
Roth, Bertram S.....6358 College Ave. (20)
Row, D. Hamilton...906 Hume Mansur Bldg. (4)
Rowe, George A.....Methodist Hospital (2)
Ruddell, Karl R. (S)...3202 N. Meridian St. (8)
Ruddell, Keith R.....3202 N. Meridian St. (8)
Rudesill, Cecil L. (S)
405 Hume Mansur Bldg. (4)
Rudesill, Robert L...405 Hume Mansur Bldg. (4)
Rushmore, Charles H.....240 N.Meridian St. (6)
Russell, John R.....1815 N. Capitol Ave. (2)
Rust, Roland B.....3949 Meadows Drive (5)
Ruth, Martin L.....4304 E. Washington St. (1)
Ryan, Glen V.....3500 Lafayette Rd. (22)

S

Sage, Russell A., Jr.....I.U. Medical Center (2)
Sage, Russell A. (S)....1944 N. Capitol Ave. (2)
Sanders, Fred.....6007 N. Michigan Rd. (8)
Sanders, Harry M. .....4829 E. 38th St. (18)
Saperstein, Morris....1815 N. Capitol Ave. (2)
Sappenfield, Ralph S.....Methodist Hospital (2)
Schaffer, Edward V.....1815 N. Capitol Ave. (2)
Schechter, John S.....3400 N. Meridian St. (8)
Scheier, Emil W. (S)..9220 Vandergriff Rd. (39)
Schiffer-Grimes, Eva M.
801 N. Shortridge Rd. (19)
Schlaegel, Theodore F., Jr.
I. U. Medical Center (2)
Schlegel, Donald M.....1815 N. Capitol Ave. (2)
Schmalhausen, Ansel W...1815 N. Capitol Ave. (2)
Schmidt, Loren F....605 Hume Mansur Bldg. (4)
Schmoyer, Maurice R...Community Hospital (19)
Schneider, Carl J.....1008 N. Beville Ave. (1)
Schneider, Paul A.....4829 E. 38th St. (18)
Schnute, Richard B.....I.U. Medical Center (2)
Schroeder, James E.....Methodist Hospital (2)
Schuchman, Gabriel....3620 N. Meridian St. (8)
Schumacher, Richard R...3524 N. Meridian St. (8)
Schuster, Dwight W.....1815 N. Capitol Ave. (2)
Scofield, John B.....3120 N. Meridian St. (8)
Scott, George E.....4110 Roland Rd. (8)
Scott, I. Winfield.....3400 N. Meridian St. (8)
Scott, John R.....6214 Broadway (20)
Scott, Robert P.....209 Hume Mansur Bldg. (4)
Scott, Samuel L.....6325 Guilford Ave. (20)
Seaman, Charles F.....Community Hospital (19)
Searight, John L.....1303 N. Arlington Ave. (19)
Sedam, Herbert L.....4548 College Ave. (5)
Sellmer, George W.....1221 E. 86th St. (40)
Sexson, Hiram T.....3731 N. Keystone (18)
Seybert, Thomas C.....5440 E. 38th St. (18)
Shafer, Marion R...614 Hume Mansur Bldg., (4)
Shanafelt, Donald K.....1802 N. Illinois St. (2)
Shapiro, Burton J.....3620 N. Meridian St. (8)
Sheehan, Francis G..6049 E. Washington St. (19)
Shelley, Richard J.....5470 E. 16th St. (18)
Sherster, Harry.....1135 S. Meridian St. (25)
Shipley, Edward.....1949 E. 11th St. (01)
Shullenberger, Wendell A.
1815 N. Capitol Ave. (2)
Shumacker, Harris B., Jr.,
I. U. Medical Center (2)
Sicks, Okla W. (S).....607 E. 82nd St. (20)
Siderys, Harry .....1815 N. Capitol Ave. (2)
Siebe, Jack C.....4829 E. 38th St. (18)
Siersdorfer, Theodore N. (S)
5559 W. Morris St. (41)
Sigmond, Harvey W..321 Hume Mansur Bldg. (4)
Silver, Richard A.....712 Hume Mansur Bldg. (4)
Simmons, James E.....I.U. Medical Center (2)
Simms, J. Leon.....3140 N. Illinois St. (8)
Sims, J. Lawrence.....3949 Meadows Dr. (5)
Slichenmyer, Jack E.....3500 Lafayette Rd. (22)
Sluss, David H. (S).....808 C. of C. Bldg. (4)
Small, Iver F.....LaRue D. Carter Hospital (2)
Smith, David L. (S)
2948 Kessler Blvd., N. Dr. (22)
Smith, E. Rogers (S)
722 Hume Mansur Bldg. (4)
Smith, Francis C. (S) .1102 N. Irvington Ave. (19)
Smith, Ray C.....5506 E. 16th St. (18)
Smith, Roy Lee (S)...707 Underwriters Bldg. (4)
Snodgrass, Robert E.
532 Turtle Creek, N. Dr. (27)
Snyder, Clarence E...532 Turtle Creek, N. Dr. (27)
Sobat, William S.....3500 Lafayette Rd. (22)
Solomon, Reuben A. (S)
412 Hume Mansur Bldg. (4)
Soper, Hunter A.....3524 N. Meridian St. (8)
Souter, Martha C.....3360 N. Meridian St. (8)
Sovine, Joe W.....504 Hume Mansur Bldg. (4)
Spahr, John F., Jr.....3400 N. Meridian St. (8)
Spalding, Joseph J...706 Hume Mansur Bldg.(4)
Sparks, Alan L.....1024 Hume Mansur Bldg. (4)
Spears, John M.....7046 Madison Ave. (27)
Speckman, Glenn H.....2120 E. 10th St. (1)
Spolyar, Louis W...Indiana State Board of Health,
1330 W. Michigan St. (2)
Sputh, Carl B., Jr.....5506 E. 16th St. (18)
Stadler, Harold E.....41 N. Shortridge Rd. (19)
Stansbury, William E.....5601 E. 21st St. (18)
Stayton, Chester A., Jr.
313 Hume Mansur Bldg. (4)
Steinmetz, Edward F...St. Vincent's Hospital (8)
Stephens, Donald E.....6211 College Ave. (20)
Stephens, Kuhrman H.
501 Hume Mansur Bldg. (4)
Stevens, Roy J.....I.U. Medical Center (2)
Stevens, Sydney L.....1802 N. Illinois St. (2)
Stoelting, Vergil K.....I.U. Medical Center (2)
Stone, Alvin T.....6202 College Ave. (20)
Stone, David F...Eli Lilly & Co., P. O. Box 618 (6)
Storey, D. Edmund.....1010 E. 86th St. (40)
Storey, Joseph L.....3454 N. Illinois St. (8)
Storms, Roy B. (S).....812 C. of C. Bldg. (4)
Strang, William C.....1815 N. Capitol Ave. (2)
Streeter, Ralph T.....3131 E. 38th St. (18)
Strickland, James W.....7024 Broadway (20)
Strickland, Neil R.....1640 N. Ritter Ave. (18)
Stucky, Elsworth K.....1349 Madison Ave. (25)
Stump, Loyd K.....3949 Meadows Dr. (5)
Stump, Thomas A.
Marion Co. General Hospital (2)
Suelzer, John G.....1815 N. Capitol Ave. (2)
Suess, Robert E.....41 N. Shortridge Rd. (19)
Sullivan, James J.....St. Vincent's Hospital (8)
Summerlin, Jack D.....3242 N. Meridian St. (8)
Surratt, Mary Norris.....1010 E. 86th St. (40)
Sutton, William E.....5807 Brockton Dr. (20)
Swan, John R.....915 Hume Mansur Bldg. (4)
Symmes, Alfred T.....1010 E. 86th St. (40)
Szynal, John S.....2811 E. 46th St. (5)

T

Talbott, Dan E.....1802 N. Illinois St. (2)
Tanner, Henry S.....321 Hume Mansur Bldg. (4)
Taube, Jack I.....214 Hume Mansur Bldg. (4)

Tavel, Morton E.....1815 N. Capitol Ave. (2)
Taylor, Clifford C.....Community Hospital (19)
Taylor, Frederic W.....3524 N. Meridian St. (8)
Taylor, Willis D.....Ford Motor Co., P.O. Box 19106 (19)
Teague, Frank W...1021 Hume Mansur Bldg. (4)
Teixler, Victor A.....818 Hume Mansur Bldg. (4)
Templer, Jerry W.....I.U. Medical Center (2)
Test, Charles E.....1006 Hume Mansur Bldg. (4)
Teter, George V.....1221 E. 86th St. (40)
Tether, Joseph E.....510 Hume Mansur Bldg. (4)
Tharpe, Ray G.....3202 N. Meridian St. (8)
Thatcher, Hugh K., Jr....4548 College Ave. (5)
Thoman, Rex L.....1815 N. Capitol Ave. (2)
Thomas, Charles R. 532 Turtle Creek, N. Dr. (27)
Thomas, E. Paul.....3450 N. Illinois St. (8)
Thomas, Fred A.....5827 Broadway (20)
Thomas, Lowell I.....1815 N. Capitol Ave. (2)
Thomas, Michael H.....I.U. Medical Center (2)
Thomas, Morris E.....1802 N. Illinois St. (2)
Thompson, John V.....7899 Ridge Rd. (40)
Thompson, Joseph F.....I.U. Medical Center (2)
Thompson, Paul D. 423 Hume Mansur Bldg. (4)
Thompson, Wayne H.....5470 E. 16th St. (18)
Thornton, Harold C.....301 E. 38th St. (5)
Throop, Frank B.....1303 N. Arlington Ave. (19)
Tindall, George T.....6002 Windsor Dr. (18)
Tinsley, Frank W.....3044 Lafayette Rd. (22)
Tinsley, Walter B., Jr.....Methodist Hospital (2)
Tinsley, Walter B. (S).....710 E. 46th St. (5)
Tischer, E. Paul.....208 Hume Mansur Bldg. (4)
Tondra, John M.....400 Hume Mansur Bldg. (4)
Torrella, Jose A.....5324 W. 16th St. (24)
Toumey, Fred L.....1802 N. Illinois St. (2)
Townley, Normand T.....3202 N. Meridian St. (8)
Trudgen, Spencer F.....1010 E. 86th St. (40)
Trusler, H. Marshall..408 Hume Mansur Bldg. (4)
Trusler, Harold M. (S) 408 Hume Mansur Bldg. (4)
Tuchman, Joseph H.....2040 E. 46th St. (5)
Tucker, Warren S...414 Hume Mansur Bldg. (4)
Tyler, Edward A.....I.U. Medical Center (2)
Tyner, Harlan H.....3202 N. Meridian St. (8)

U-V

Ullom, Ralph B.....3524 N. Meridian St. (8)
Vandivier, James M...209 Hume Mansur Bldg. (4)
Vandivier, Robert M.....3720 N. Meridian St. (8)
Van Dorn, Myron J.....2165 Weslynn Dr. (8)
Van Fleet, Josephine....Indiana State Board of Health, 1330 W. Michigan St. (2)
Van Meter, C. Powell.....3419 E. 10th St. (1)
Van Tassel, Charles J., Jr. 709 Hume Mansur Bldg. (4)
Van Vactor, Helen D...1815 N. Capitol Ave. (2)
Vellios, Frank.....I.U. Medical Center (2)
Vollrath, Victor J.....5202 N. Illinois St. (8)
Von Der Haar, Gerard.....6919 E. 10th St. (19)
Vore, Robert E.....5350 E. 38th St. (18)

W

Wagner, Virginia M. 3800 W. Michigan St., #1803 (22)
Wainscott, Clinton S., Jr. 1303 N. Arlington Ave. (19)
Waldo, J. Thayer.....3989 Meadows Dr. (5)
Walther, Joseph E.....3202 N. Meridian St. (8)
Walton, William M.....1802 N. Illinois St. (2)
Ward, Wesley C.....5130 N. Meridian St. (8)
Warman, Alvah P. (S)....1363 E. 38th St. (5)
Warneke, Charles H...1815 N. Capitol Ave. (2)
Warriner, James B...1012 N. Emerson Ave. (19)
Warvel, John H., Jr.....1010 E. 86th St. (40)
Washington, Wilbert ....2142 N. Capitol Ave. (2)
Weaver, Dorothy E...3000 W. Washington St. (22)
Weigand, Clayton G. Eli Lilly & Co., 740 S. Alabama St. (6)
West, Joseph L.....6714 Rockville Rd. (24)
Westfall, B. Kemper.....668 E. 38th St. (5)
Wheeler, David E.....Community Hospital (19)
White, Donald J.....3524 N. Meridian St. (8)
White, Douglas H.....3524 N. Meridian St. (8)
White, John B., Jr.....1815 N. Capitol Ave. (2)
Widdifield, G. E....532 Turtle Creek, N. Dr. (27)
Wilbrandt, Hans R.....5324 W. 16th St. (24)
Wilkens, Irvin W.....1743 Shelby St. (3)
Williams, Harold W.....6000 E. 46th St. (26)
Williams, Howard S.....Community Hospital (19)
Williams, Hugh L.....4829 E. 38th St. (18)
Williams, Paul D....Central State Hospital (22)
Wilson, Fred M.....I.U. Medical Center (2)
Winters, Peter L.....Methodist Hospital (2)
Wirey, Harold R.....7377 S. Madison Ave. (27)
Wise, William R.....2372 Lafayette Rd. (22)
Wishard, William N., Jr...1711 N. Capitol Ave. (2)
Woerner, Thomas E...620 Hume Mansur Bldg. (4)
Wolf, Harry C.....8545 Northcrest Ct. (60)
Wolfram, Don J.....208 Hume Mansur Bldg. (4)
Wood, Donald E.....6325 Guilford Ave. (20)
Woodard, Abram S., Jr.....668 E. 38th St. (5)
Woolling, Kenneth R...230 Hume Mansur Bldg. (4)
Worley, Joseph P....5839 E. Washington St. (19)
Wray, James B.....I.U. Medical Center (2)
Wrege, Malcolm L.....1502 N. Emerson Ave. (19)
Wright, James J...LaRue D. Carter Hospital (2)
Wright, J. William, Jr. 5506 E. 16th St. (18)
Wunsch, Charles M.....5506 E. 16th St. (18)
Wyttenbach, John E...503 Hume Mansur Bldg. (4)

Y

Yacko, Michael L.....5350 E. 38th St. (18)
Yingling, Robert J.....Community Hospital (19)
Young, Don J.....I.U. Medical Center (2)
Young, James W.....6302 Guilford Ave. (20)
Young, John E.....4829 E. 38th St. (18)
Young, John M.....1456 E. 46th St. (5)
Young, John T.....3151 N. Illinois St. (8)

Z

Zell, Evertson H.....812 C. of C. Bldg. (4)
Zeman, Ruth E.....4754 Jennys Rd. (8)
Zeps, E. Frances.....Indiana State Board of Health, 1330 W. Michigan St. (2)

Lewis, Robert J. 4350 Franklin Rd., Lawrence (26)
Fisher, Gerald E. 1122 N. Lebanon, Lebanon (46052)
Asher, James W...4730 W. 72nd St., New Augusta (46268)
Browning, William M. R. R. 1, Box 221-E, Nineveh (46164)
Paynter, Morris B.....59 Union St., Southport (46227)
Anderson, John T.....Pitman-Moore Co., 9550 Zionsville Rd., Zionsville (46077)
Dacquisto, Michael P.....Dow Chemical Co., P. O. Box 10, Zionsville (46077)
Harvey, Verne K., Sr...R. R. 2, Box 354, Zionsville (46077)
Nolan, Robert B.....Pitman-Moore Research Center, P.O. Box 10, Zionsville (46077)
Schwarz, Anton J.....Pitman-Moore Co., P. O. Box 10, Zionsville (46077)

Alexander, Paul J.....Rt. 1, Box 306 B, Olympia, Wash. (98501)
Arnold, Thomas L. Sheppard AFB, Wichita Falls, Texas (76311)
Ashwood, Edward L.....317 Bowman Dr., Woodbury, N.J. (08096)
Bean, William J.....USAF Hospital, Maxwell AFB, Montgomery, Ala. (36112)

Bennhoff, David F.
Naval Hospital, Great Lakes, Ill. (60088)
Berger, Morley.....5005 Collins Ave., Miami Beach, Fla. (33140)
Bloemker, E. Fredrick....TAC Combat Training Wing, Davis-Monthan AFB, Tucson, Ariz. (85707)
Bohner, Caryle B. (S)..Huasca, Hidalgo, Mexico
Bomalaski, M. Donald...Box 70, Wahiawa, Hawaii
Boyce, Paul A.
U.S.S. Sperry, FSPO, San Diego, Calif. (92132)
Brose, Paul E.....% The Defiance Clinic, 1400 E. Second St., Defiance, Ohio (43512)
Brough, A. Kathleen
59 Townsend St., Roxbury, Mass. (02119)
Bruetsch, Walter L. (S).....2663 Tallant Rd., Santa Barbara, Calif. (93105)
Bugh, Charles W.....535 Second Ave., #101, Fairbanks, Alaska (99701)
Campbell, Richard W.....2131 Messina Pl., Monterey, Calif. (93940)
Cast, William R.....3918 Rockridge Rd., Columbia, S. Carolina (29206)
Clark, Charles M., Jr..National Institute of Health, Lab. of Nutrition and Endocrinology, Bethesda, Md. (20014)
Cline, Donald L.....2582 Balwynne Pk. Rd., Philadelphia, Pa. (19131)
Close, Gerald A.....Nyadiri Methodist Centre, P.B. 636E, Rhodesia, Africa
Daniel, John C. (S).....531-B Via Estrada, Laguna Hills, Calif. (92653)
DeArmond, Murray M., Jr.....100 Hugo St., Apt. 4, San Francisco, Calif. (94122)
Dersch, David M.....840 Hosp. TAC, Lockbourne AFB, Columbus, Ohio (43217)
Dirks, Kenneth R...Research Div., U.S. Army Med. Res. & Dev. Comm., Washington, D.C. (20315)
Everly, Stephan S.....30-310-A Cherry Dr., APO Seattle, Wash. (98742)
Franz, Sherman G.....Box 169, APO New York, N.Y. (09231)
Fulper, James C.....HHC, 318 Bn., 1st BDE, 4th Inf. Div., APO San Francisco, Calif. (96265)
Gabe, William E. (S).....61 Heather Lane, Orindo, Calif. (94563)
Genna, Mary M.....11801 W. Indian Trail, Hale's Corners, Wisc. (53130)
Gregory, Delmar R.....1697 Ala Moana Blvd., Honolulu, Hawaii (96815)
Gumbert, Jack L.....57 E. Harris St., Fort Rucker, Ala. (36360)
Herod, Gilbert.....U.S. Forces, USOM/Team #1, APO San Francisco (96337)
Hurt, LaVerne B.....3102 Palm Ave., Delray Beach, Fla. (33444)
Lackey, John T.....Box 224, Hines Hospital, Hines, Ill. (60141)
LaFollette, James W.....3rd Marine Div. (Rein), FMF, APO San Francisco, Calif. (96602)
Lang, Erich K.
429 Dunmoreland Circle, Shreveport, La. (71106)
Lawler, George F. (S).....133 Edmund Dr., Long Beach, Miss. (39560)
Lawrance, Kingsley.....3320 Third Ave., San Diego, Calif. (92103)
Lawrence, Gene C.....Orange Co. Medical Center, Orange, Calif. (92668)
McCammon, Robert E.....1905-A Virginia Ave., Homestead AFB, Fla. (33030)
Markstone, David H.
208 Dogwood Dr., Portsmouth, Va. (23703)
Masbaum, Ned P...U.S. Naval Hosp., Portsmouth, New Hampshire (03801)
Mertz, Henry O., Sr. (S)...2911 Pharr Court, S., N. W., Atlanta, Ga. (30305)
Montgomery, W. Foster.....% Bogota, State Department, Washington, D.C. (20521)
Moran, William J.....Navy Hospital, Camp Lejeune, N. Carolina (28542)
Moser, Rollin H. (S)..Land O'Lakes, Wis. (54540)
Myers, Roy V. (S).....7710 Beta Circle, West Palm Beach, Fla. (33406)
Pearson, Lyman R.....1881 Ridgeway Dr., Clearwater, Fla. (33515)
Powell, Tom D.....USAF Hospital, Williams AFB, Chandler, Ariz. (85224)
Quizon, Ceferino S.....V.A. Hospital, 5901 E. 7th St., Long Beach, Calif. (90804)
Rabb, Aaron.....2515 Brownsboro Rd., Apt. 6, Louisville, Ky. (40206)
Rhodes, Theodore D.
777 John Ringling Causeway, Sarasota, Fla. (33577)
Ricketts, Joseph W. (S).....136 Magnolia Dr., Ormond Beach, Fla. (32074)
Rigg, John F. (S).....1279 N. E. 97th St., Miami Shores, Fla. (33153)
Robinson, Frank C. (S)....33901 Blue Lantern, Dana Point, Calif. (92629)
Rogers, Thomas P.....6142 La Pintura Dr., La Jolla, Calif. (92037)
Rudolph, Stephen J., Jr.....613-B Hickam, Grand Forks AFB, N. Dakota (58203)
Rust, Byron K.
P.O. Box 127, Big Pine Key, Fla. (33043)
Sidel, Alan W.....130 Auburn Ave., Columbus AFB, Columbus, Miss. (39701)
Slomka, Myron B.....Shell Chemical Co., 110 W. 51st St., New York, N.Y. (10020)
Smith, Stephen M.....Escombia General Hosp., Pensacola, Fla. (32500)
Snider, Byron...R. R. 1, Box 963, Escondido, Calif. (92025)
Steury, Ernest M.....Tenwek, Sotik, Bomet, Kenya, Africa
Stoller, Leon J.....834-A Edinbow Ct., Dayton, Ohio (45433)
Walker, Robert M.....Hippo Valley Hosp., P. Bag 96, Chiredzi, Rhodesia, Africa
Watring, Watson G.....U.S. Tripler Hosp., APO, San Francisco, Calif. (96438)
Ziperman, H. Haskell...Box 295, Balboa Heights, Canal Zone

MARSHALL COUNTY

Hampton, James N.....Argos (46501)
Swihart, John J.....Argos (46501)
Connell, Vactor O.....Bourbon (46504)
Kemp, W. Alfred.....Bourbon (46504)

Bremen

(*Zip Code* 46506)

Bowen, Otis R.....304 N. Center St.
Burket, Cecil R.....424 W. South St.
Cripe, Earl P.....119 N. Center St.
Schreiner, John E.....201 E. Plymouth
Stine, Marshall E.....424 W. South St.

Culver

(*Zip Code* 46511)

Baker, Milan D.....Culver Military Academy
Deery, Michael F.....953 E. Shore Dr.
Faulkner, Donald J.....W. Terrace Parkway
Hippensteel, Russell R. (S).....121 College Ave.
Howard, Joseph D.....921 Lake Shore Dr.

Rosero, M. George.....Kewanna (46939)

Plymouth
(*Zip Code* 46563)

Coursey, James O., Jr.....109 N. Walnut St.
France, Lloyd C.....1223 N. Center St.
Guild, John K.....116 E. Washington St.
Kubley, James D.....304 N. Walnut St.
Peterson, Ronald L.....116 E. Washington St.
Reno, Edward C.....1805 Hope Blvd.
Rimel, James F.....1223 N. Center St.
Robertson, James S.....304 N. Walnut St.
Vore, Louring W.....116 E. Washington St.

Reed, Robert G., Jr.....531 N. Main St., South Bend (46601)
Thompson, Alfred A. (S).....Tyner (46572)

MARTIN COUNTY

(See Daviess-Martin)

MIAMI COUNTY

Crates, Gordon C.....Denver (46926)
Sixbey, Maurice D.....Denver (46926)
Sennett, William K.....Macy (46951)

Peru
(*Zip Code* 46970)

Farag, Rafik S.....68 E. Third St.
Ferrara, Donald W.....18 W. Fifth St.
Ferrara, Samuel J.....18 W. Fifth St.
Guthrie, James U.....331 W. Third St.
Herd, Cloyn R.....15 S. Wabash St.
Hill, Lloyd L.....302 N. Duke St.
Rendel, Harold E.....302 N. Duke St.
Reyes, Diego C.....15 S. Wabash St.
Snyder, Parker W.....302 N. Duke St.

Malouf, Stephen D. (S).....P. O. Box 457, Bloomington, Ill. (61701)

MONROE COUNTY

(See Owen-Monroe)

MONTGOMERY COUNTY

Crawfordsville
(*Zip Code* 47933)

Alexander, Stephen J.....408 W. Market St.
Byllesby, Joyce E.....Culver Hospital
Daugherty, Fred N. (S).....120 W. Pike St.
Dodds, Wemple.....Culver Hospital
Eggers, Richard R.....120 W. Pike St.
Haller, Thomas C.....411 Tinsley Ave.
Humphreys, John W.....312 Jones St.
Kirtley, James M.....Box 506 - Green Acres
Lingeman, Byron N. (S).....419 Ben Hur Bldg.
Ludwig, Paul E.....408 W. Market St.
Millis, Samuel C.....Box 506 - Green Acres
Peacock, Norman F.....219 Ben Hur Bldg.
Pierson, Robert H.....305 E. Main St.
Shannon, Wesley E.....408 W. Market St.
Stephens, James P.....307 Binford St.
Viray, Victoriano G.....411 Tinsley Ave.
Wallace, Hawthorne C. (S) R. R. Donnelley & Sons Co.

Priebe, Fred H.....Marion Co. Gen. Hosp., Indianapolis (46207)
Blix, Fred M.....Ladoga (47954)
Davis, William H.....New Market (47965)
Kindell, Hurschell D.....New Richmond (47967)
Richards, Edgar E.....Russellville (46175)
Thompson, Claude N.....Waynetown (47990)
Parker, Carl B.....Wingate (47994)

MORGAN COUNTY

Martinsville
(*Zip Code* 46151)

Brubeck, Robert E.....1220 E. Columbus
Drake, Ellery T.....P. O. Box 110
Eisenberg, David A.....Sunnyside Dr.
Gray, Leon.....171 E. Washington St.
Miller, Ray D.....290 E. Washington St.
Ostheimer, George.....Sunnyside Dr.
Pitkin, McKendree C. (S)....440 Washington St.
Turner, Maurice A.....10½ N. Main St.
Van Wienen, John.....60 W. Morgan
Willan, Horace R. (S).....109 S. Jefferson St.
Winter, William P.....1390 E. Columbus

Mooresville
(*Zip Code* 46158)

Comer, Kenneth E.....R. R. 2, Box 444
Kendrick, William M.....130 Indiana St.
Kourany, Edgar.....320 N. Indiana St.
Kourany, Oscar.....320 N. Indiana St.
Van Bokkelen, Robert W.....320 N. Indiana St.

Wilson, Oliver R.....Box 525, Morgantown (46160)
Miller, Robert J.....Paragon (46166)
Reese, Jay S.....Medical Dept., NAAS Whiting Field, Milton, Fla. (32570)

NEWTON COUNTY

Schoonveld, Arthur.....Brook (47922)
Parker, John C.....Goodland (47948)
Kresler, Leon E.....101 N. 4th St., Kentland (47951)
Guzman, Marcelino F.....Morocco (47963)

NOBLE COUNTY

Bowman, Charles M.....Albion (46701)
Fitzkee, William E.....Albion (46701)
Greenlee, Joseph A., Jr.....Avilla (46710)
Sneary, Max E.....Avilla (46710)

Kendallville
(*Zip Code* 46755)

Bryan, Robert E.....705 N. State St.
Hepner, Herman.....705 N. State St.
Messer, Frank W.....115 E. Rush St.
Slough, O. Thomas.....703 E. Mitchell
Stallman, Carl F.....409 E. Wayne St.

Ligonier
(*Zip Code* 46767)

Hooker, Donald J.....104 S. Main St.
Stone, Robert C.....405 S. Cavin St.
Stultz, Quentin F.....401 S. Cavin St.

Fipp, August L.....Rome City (46784)
Pulskamp, Bertrand H.....Wolcottville (46795)
Greenlee, James R.....10615 Abercorn, N. Hampton Apts. #6, Savannah, Ga. (31406)

OHIO COUNTY

(See Dearborn-Ohio)

ORANGE COUNTY

Encinas, Senen J.....English (47118)
Hagan, Marion L.....French Lick (47432)
Keseric, N. E.....French Lick (47432)
Sugarman, Benjamin E.....French Lick (47432)
Hodgin, Phillip T.....Orleans (47452)
Schoolfield, William E.....Orleans (47452)
Clark, Ivan A.....Paoli (47454)
McCalla, Charles X.....Paoli (47454)
Spears, John K.....Paoli (47454)

OWEN-MONROE COUNTIES

Bloomington

(*Zip Code* 47401)

Baxter, Neal E.....306 E. Fifth St.
Bidney, Evelyn B.....321 S. Jordan Ave.
Bomba, Brad J.....1920 E. Third St.
Booze, James H.....711 W. Second
Borland, Raymond M.....114 N. Lincoln St.
Buckingham, Richard E.....344 S. College Ave.
Byrne, Louis .....311 E. Fifth St.
Campbell, William T.....314 E. Seventh St.
Creek, Jean A.....1920 E. Third St.
Dalton, Naomi L.....2307 E. Second St.
Emery, Charles B., Jr.....711 W. Second
Estes, Ambrose C.....400 E. Third St.
Farr, James C.....405 E. Fourth St.
Fowler, R. Ross.....104 N. Grant St.
Fugelso, Erling S.....100-F Georgetown Village
Geiger, Dillon D.....115 S. Lincoln St.
Hammer, Jay W.....Bloomington Hospital
Hardtke, Eldred F.....2305 E. Third St.
Hepner, Herman S.....312 N. Walnut St.
Hibner, Kermit Q.....117 N. Grant St.
Holland, Philip T.....406 S. College Ave.
Holtzman, Paul W.....113 S. Lincoln St.
Houshmand, Cyrus.....422 E. Kirkwood Ave.
Howard, William F.....300 E. Kirkwood Ave.
Hrisomalos, Frank N.....306 E. Kirkwood Ave.
Karsell, Philip R.....3901 E. Third St.
Ley, Glen D.....400 E. Third St.
Link, William C.....314 W. First St.
Lundblad, Wilfred M.....1805 E. Tenth St.
Lyons, Robert E.....P. O. Box 278
McClary, Charles W.....1920 E. Third St.
McIntire, Clarence R.....Bloomington Hospital
McLelland, Mary E.....310 S. Howe St.
Manifold, Harold M.....1920 E. Third St.
Marchant, Clarence H.....350 S. College Ave.
Mather, Glenn B.....Bloomington Hospital
Middleton, Thomas O.....411 W. Howe St.
Milan, Joseph F.....711 W. Second St.
Morford, Guy.....314 E. Seventh St.
Owens, Walter L.....411 E. Fourth St.
Pizzo, Anthony.....Bloomington Hospital
Poolitsan, George C.....407 N. Walnut St.
Ramsey, Hugh S.....619 E. First St.
Ratts, Larry D.....1920 E. Third St.
Rieger, I. Taylor.....711 W. Second St.
Robinson, Robert D.....401 E. Fourth St.
Rogers, Otto F., Jr.....210 N. Washington St.
Rollins, Thomas K.....114 E. Seventh St.
Ross, Ben R.....314 E. Seventh St.
Ross, James B.....314 E. Seventh St.
Ruff, Jerard G.....1111 N. Walnut St.
Schaffer, James J.....703 W. Second St.
Schell, H. Richard.....711 W. Second St.
Schilling, Richard J.....711 W. Second St.
Schultheis, Richard L.....Maple Grove Rd.
Schuman, Edith B.....Indiana University
Seagle, William C.....111 E. Ninth St.
Sibbitt, Joseph W.....115 S. Lincoln St.
Smalley, Raymond.....I.U. Student Health Center
Smith, Herschel S.....316 E. Fourth St.
Spencer, Beaufort A.....110 E. 10th St.
Stangle, William J.....640 S. Rogers
Steele, Lowell R.....4417 Blackstone Ct.
Stoner, Harold E.....409 E. Fourth St.
Surian, Michael A.....711 W. Second St.
Taraba, Ralph W.....211 E. Martha St.
Topolgus, James N.....403 N. Walnut St.
Wass, Robert W.....311 E. Kirkwood
Way, James A.....322 E. Kirkwood Ave.
Wenzler, Paul J.....311 E. Fifth St.
White, John P., Jr.....115 S. Lincoln St.

Stouder, Charles E.....P. O. Box 405, Ellettsville (47429)
Reed, William C. (S).....Nashville (47448)
Mitchell, George L. (S).....Smithville (47458)

Spencer

(*Zip Code* 47460)

Brown, Marcel S.....53 W. Market St.
Kay, Oran E. (S).....Main & Morgan Sts.
Skrentny, Thomas T.....792 E. Morgan St.

PARKE-VERMILLION COUNTIES

Goodrum, William R.....Cayuga (47928)

Clinton

(*Zip Code* 47842)

Evans, Frederick J.....242 S. Third St.
Herzberg, Milton.....222 Elm St.
Somerville, John W.....225 Elm St.

Webb, Lawrence C.....Dana (47847)
Britton, Welbon D.....Montezuma (47862)
Minich, William G.....FMC Corp., Newport (47966)

Rockville

(*Zip Code* 47872)

Beebe, Milton O., Jr.....110 York St.
Bloomer, Richard S.....115 N. Market St.
Dowell, Emil H. (S).....Ohio St.
Harstad, Casper (S).....216 W. High St.
Noblitt, James S. (S).....Rockville
Pirkle, Hubert B. (S).....Indiana State Hospital for Chest Diseases
Swaim, J. Franklin.....111 N. Market St.

Pace, Jerome V. (S)
210 N. Warman Ave., Indianapolis (46222)
Fell, Robert M.....Rosedale (47874)
Greene, Frederick G. (S).....Seelyville (47878)
Kempf, Gerald F. (S)
3512 Glaser Dr., Kettering, Ohio (45429)

PERRY COUNTY

Bush, Hargis R. (S).....Cannelton (47520)

Tell City

(*Zip Code* 47586)

Gilbert, Robert G.....Perry Co. Mem. Hosp.
Herr, John W. (S).....622 Main St.
Lohoff, Lewis C.....507 Main St.
Neifert, Noel L.....507 Main St.
Ress, Gene E.....507 Main St.
Smith. Fred, Jr.....507 Main St.
Ward, Robert A.....507 Main St.

PIKE COUNTY

Petersburg

(*Zip Code* 47567)

Hall, Donald L.....7th & Poplar Sts.
Higgins, James L.....1104 Vincennes Ave.
Omstead, Milton.....110 S. Sixth St.

PORTER COUNTY

Chesterton

(*Zip Code* 46304)

Forchetti, John A.....700 S. Calumet
Griffin, Joseph P.....419 S. Jackson Blvd.
Hall, Thomas C.....621 Broadway
Harless, Clarence M. (S).....123 W. Indiana
Read, John E.....700 S. Calumet
Robertson, William C.....600 E. Morgan
Shields, Duncan M.....R. R. 3, Box 248

Sun, Chen T.....Hebron (46341)
Fajardo, Manuel.....Kouts (46347)

Portage

(*Zip Code* 46368)

Carlson, Milton R.....14000 Central
Hoham, Frederick D.....14000 Central
Kilmer, Warren L.....14000 Central
Lands, Robert M.....14000 Central
Sturdevant, Frank M.....14000 Central
Tetrick, Lain.....National Steel Corporation

Valparaiso

(*Zip Code* 46383)

Altuna, Raquel.....Porter Memorial Hospital
Armalavage, Leon J.....802 LaPorte Ave.
Azar, Esmail.....1005 Campbell St.
Brown, James C.....1005 Campbell St.
Brown, James R.....1005 Campbell St.
Covey, Thomas J.....1 Sheffield Dr.
Davis, Carl M. (S).....202 Indiana Ave.
DeGrazia, Eugene J.....810 LaPorte Ave.
Dittmer, Jack E.....60 Jefferson St.
Dittmer, Thomas L.....60 Jefferson St.
Evans, Daniel R.....1101 E. Glendale Rd.
Frank, John R. (S).....23 Lincolnway
Gold, Marvin E.....1005 Campbell St.
Green, Leonard J.....1005 Campbell St.
Griffin, Charles G.....1101 E. Glendale Rd.
Kobak, Alfred J., Jr.....1101 E. Glendale Rd.
Koenig, Robert L.....1101 E. Glendale Rd.
Lee, Robert Y.....808 Lincolnway
Makovsky, Theodore.....1005 Campbell St.
Noonan, Leo C.....7 Napoleon St.
O'Neill, Martin J.....1101 E. Glendale Rd.
Onderak, Edward P.....814 LaPorte Ave.
Poncher, John R.....1101 E. Glendale Rd.
Pangan, Jesus F.....802 LaPorte Ave.
Pangan, Zanita S.....802 LaPorte Ave.
Sacks, Leonard Z.....Porter Memorial Hospital
Scheimann, Lois.....702 Lincolnway
Tufekcioglu, Erdogan.....802 LaPorte Ave.
Vietzke, Paul C. F.....1005 Campbell St.
Wu, Stewart.....802 LaPorte Ave.

Kimmel, Louis E., Jr.
R. R. 4, Box 190D, Valparaiso (46383)
Gordon, Joseph L. (S).....Wheeler (46393)

POSEY COUNTY

Montgomery, Samuel B. (S).....Cynthiana (47612)
Ropp, Harold E.....New Harmony (47631)
Woods, Arba L. (S).....544 S. Hebron Ave., Evansville (47715)
Boren, Paul R.....Poseyville (47633)

Mount Vernon

(*Zip Code* 47620)

Crist, John R.....105 E. Sixth St.
Hirsch, Herman L.....126 W. Fifth St.
McReynolds, Charles R.....1240 Cardinal Dr.
Vogel, L. John.....131 W. Third St.

PULASKI COUNTY

Eshelman, Henry R.....Monterey (46960)

Winamac

(*Zip Code* 46996)

Halleck, Harold J.....119 W. Main St.
Hollenberg, Edward L.....613 Tippecanoe Dr.
Thompson, William R.....111 N. Monticello

PUTNAM COUNTY

Veach, Lester W. (S).....Bainbridge (46105)
Veach, Richard L.....Bainbridge (46105)
Ellett, John, Jr.....Coatesville (46121)
Jacobs, Rene M.....Coatesville (46121)

Greencastle

(*Zip Code* 46135)

Dettloff, Frederick R.....Alamo Bldg.
Fuson, Wenfred J.....314 Rosebud Lane
Haggerty, Fred E.....407 Melrose Ave.
Johnson, James B.....105 E. Washington St.
Lett, James C.....239 Hillsdale
Nichols, Anne Sackett.....707 E. Seminary St.
Roof, Roger S.....DePauw Health Service
Schauwecker, Cleon M.....239 Hillsdale Ave.
Smith, A. Wilson.....R. R. 3, Box 111
Steele, Dick J.....Alamo Bldg.
Tipton, William R.....110 S. Vine St.
Wiseman, V. Earle (S).....239 Hillsdale Ave.

RANDOLPH COUNTY

Nixon, Byron (S).....Farmland (47340)
White, Harvey E.....Farmland (47340)
Jordan, Leo E.....Lynn (47355)
Shallenberger, Henry R.....Modoc (47358)
Quiambao, Hector S.....Ridgeville (47380)

Union City

(*Zip Code* 47390)

Birum, Patricia J.....334 W. Oak St.
Chambers, Carol R.....Chambers Medical Clinic
Chambers, Leroy B.....Chambers Medical Clinic
Landon, David J.....R. R. 2
McClure, Morris E.....334 W. Oak St.
Phipps, Leland K. (S).....R. R. 1, Box 63A
Reid, Robert W. (S).....726 W. Division St.
Wagoner, B. D.....Columbia and Lennox St.

Winchester

(*Zip Code* 47394)

Dininger, William S. (S).....303 S. Main St.
Koch, Howard W.....208 E. Washington St.
Painter, Lowell W.....124 E. Franklin St.
Slick, Crystal R.....457 Elm St.
Sparks, Paul W.....212 S. Main St.

RIPLEY COUNTY

Freeland, Bill E.....12 E. Boehringer, Batesville (47006)
Hisrich, Lloyd W...222 Maplewood Ave., Batesville (47006)
Paras, Jose L.....Batesville (47006)
Warn, William J.....Milan (47031)
Row, George S.....Osgood (47037)
McConnell, William C.....Sunman (47041)
Hopkins, L. H.....Versailles (47042)
Libunao, Artemio S.....Versailles (47042)

RUSH COUNTY

Smith, Stephen D.....Knightstown (46148)
Sheets, Charles E.....Manilla (46150)
Worth, C. Willard.....Milroy (46156)

Rushville

(*Zip Code* 46173)

Atkins, Clarence C.....225 N. Morgan St.
Corpe, Kenneth F.....R. R. #4
Dean, Donald I.....Fourth & Main
Ellis, Davis W., Jr.....E. 11th St.
Green, Frank H., Jr.....134 E. Second St.
Lee, John M. (S).....914 N. Morgan St.
McKee, Harry G.....208 W. First St.
Norris, Marvin G.....134 E. Second St.
Nutter, Wyndham H.....1003 N. Morgan

ST. JOSEPH COUNTY

Hartsough, Ralph I.....Lakeville (46536)

Mishawaka

(*Zip Code* 46544)

Barone, Carmelo V.....307 W. Fourth St.
Christophel, Verna A.....109 W. Third St.
Ganser, Richard A.....111 S. Race St.
Gerig, Eldon L.....303 S. Main St.
Lester, Vern L.....303 S. Main St.
Macri, Paul A.....116½ W. Third St.
Mahank, Camiel C.....303 S. Main St.
Orr, W. Robert.....303 S. Main St.
Rabasa, Rafael.....303 S. Main St.
Reed, Robert F.....1316 Lincoln Way E.
Rosenwasser, Jacob.....225 Lincoln Way E.
Schaphorst, Richard A.....113 S. Church St.
Schlossberg, Victor E., Jr.....301 W. Fourth St.
Sellers, Francis M.....303 S. Main St.
Spalding, David L.....427 Lincoln Way E.
Spalding, Wendell L.....427 Lincoln Way E.
Stringer, Drennon D.....303 S. Main St.
Templeton, Ames R.....516 Clay St.
Walters, Charles E.....319 S. Spring St.
Whitlock, Merle E.....303 S. Main St.
Wilson, Douglas J.....303 S. Main St.
Wurster, Herbert C.....221 E. Third St.
Zimmer, Henry J.....119½ Lincoln Way W.

Luzadder, John E.
105 W. Michigan St., New Carlisle (46552)
Byler, John J.....408 N. Main St., North Liberty (46554)
Warrick, Homer L....106 Lincolnway W., Osceola (46561)

South Bend

(*Zip Code 466 plus zone number.*)

A

Acker, Robert B. (S).....418 Sherland Bldg. (1)
Ahler, Kenneth J.....937 Roosevelt (16)

B

Backs, Alton J.....1831 N. Kessler Blvd. (16)
Baran, Charles.....402 Sherland Bldg. (1)
Bartsch, Harvey L.
919 E. Jefferson Blvd., #102 (22)
Beach, Norman F.....919 E. Jefferson Blvd., #107 (22)
Bechtold, S. E...919 E. Jefferson Blvd. #302 (22)
Bell, Horace D.....420 N. Hill St. (17)
Bennett, Jene R.....531 N. Main St. (1)
Berke, Robert D.....1118 Lincoln Way E. (18)
Biasini, Benedict A.....403 Dixie Way, N. (37)
Bickel, David A. (S)....1335 E. Wayne St. (15)
Birmingham, Peter J. (S)
61490 Meadowlark Lane (15)
Bixler, Louis C. 919 E. Jefferson Blvd., #207 (22)
Bodnar, Leslie M.....525 N. Michigan (1)
Bogan, William C.....3209 Mishawaka Ave. (15)
Booth, Franklin M.....430 Sherland Bldg. (1)
Borough, Lester D.....710 J. M. S. Bldg. (1)
Brechtl, Harvey J.
919 E. Jefferson Blvd., #104 (22)
Buchanan, Wallace D.
919 E. Jefferson Blvd., #107 (22)
Buechner, Frederick W.
116 N. Main St., #261 (1)
Buslee, Roger M.....531 N. Main St. (1)
Bussard, Frank W.
722 E. Colfax Ave. (17)
Butts, Milton A.....118 N. Walnut St. (28)

C

Calvin, Helen M.....103 S. Eddy St. (17)
Carter, F. R. Nicholas (S)
2000 E. Jefferson Blvd. (17)
Cassady, James V. (S)....815 Sherland Bldg. (1)
Cassady, John R.....815 Sherland Bldg. (1)
Chamberlain, Donald S...919 E. Jefferson Blvd., #207 (22)
Clark, William H.....520 Sherland Bldg. (1)
Colip, George D.....514 Sherland Bldg. (1)
Colosey, Frederick J...3123 Mishawaka Ave. (15)
Cook, Gordon C.....719 N. Main St. (1)
Cooper, Harry L. (S).....428 Sherland Bldg. (1)
Cox, Alfred C.....51916 U. S. 31 N. (37)
Culbertson, Carl S.....531 N. Main St. (1)
Custer, Edward W.....Healthwin Hosp. (37)

D

Davis, Edward A.....3014 Ardmore Trail (28)
Denham, Robert H..... 919 E. Jefferson Blvd., #204 (22)
Devetski, Robert L.....514 Sherland Bldg. (1)
DeVoe, Kenneth Roy....604 N. Michigan St. (1)
Dietl, Ernest L.....820 Sherland Bldg. (1)
Dingley, Albert F.
919 E. Jefferson Blvd., #204 (22)
Dodd, Robert D.....2311 N. Miami St. (14)
Dolezal, Bernard J.....115 S. Eddy St. (17)
Donnelly, Everett F.....527 N. Michigan St. (1)
Dunlap, D. Logan.....523 J.M.S. Bldg. (1)

E

Eades, R. Charles....914 E. Jefferson Blvd. (17)
Edwards, Bernard E.....1134 Ridgedale Rd. (14)
Egan, Sherman L.....523 J.M.S. Bldg. (1)

Engel, Howard R.
919 E. Jefferson Blvd., #403 (22)
English, John Paul.....211 N. Eddy (17)
Ericksen, Lester G.
919 E. Jefferson Blvd., #207 (22)
Erickson, Gustaf W.....211 N. Eddy (17)

F

Feferman, Martin E.
919 E. Jefferson Blvd., #407 (22)
Feldman, Max.....1921 Miami St. (13)
Filipek, Walter J.....311 Odd Fellows Bldg. (1)
Firestein, Ben Z. 919 E. Jefferson Blvd., #307 (22)
Firestein, Ray.....416 Sherland Bldg. (1)
Fish, Edson C.....414 Sherland Bldg. (1)
Fisher, Lawrence F. (S)..59472 S. Main St. (14)
Foley, Hansel O.....704 N. Main St. (1)
Forrest, O. Norman, Jr.....719 N. Main St. (1)
Frank, Herbert 919 E. Jefferson Blvd., #202 (22)
Frank, Lyall L., Jr.....224 W. Navarre St. (1)
Frank, Lyall L. (S).....224 W. Navarre St. (1)
Frash, DeVon W., Jr.....1910 Miami St. (13)
Frey, William B.....316 N. Ironwood Dr. (15)
Friedman, Morris S.
919 E. Jefferson Blvd., #402 (22)
Frith, Louis G.....521 W. Washington Ave. (1)

G

Gaffney, Raymond.....535 W. Colfax Ave. (1)
Ganser, Ralph V.....302 Sherland Bldg. (1)
Gates, George E.....211 N. Eddy (17)
Gilman, Marcus M. (S).401 Odd Fellows Bldg. (1)
Godersky, George E.....719 N. Main St. (1)
Graf, John Paul.....414 Sherland Bldg. (1)
Green, G. Richard.....822 Sherland Bldg. (1)
Green, George F.....822 Sherland Bldg. (1)
Green, Norval E.....704 N. Main St. (1)
Grillo, Donald.....226 Sherland Bldg. (1)
Grorud, Alton C.....211 N. Eddy (17)
Grove, James H. 919 E. Jefferson Blvd., #107 (22)

H

Haley, George M.....424 Sherland Bldg. (1)
Hall, James M.....914 E. Jefferson Blvd. (17)
Hamilton, Charles O.....527 N. Michigan St. (1)
Hanley, Harriet Faith
919 E. Jefferson Blvd., #101 (22)
Harris, C. Glenn.....527 W. Colfax Ave. (1)
Haugseth, Ellsworth K.....211 N. Eddy (17)
Hawkins, Glen E.....527 N. Michigan St. (1)
Helmer, John F.....826 Sherland Bldg. (1)
Hilbert, John W. (S)
61600 Brightwood Lane (14)
Hildebrand, John O., Jr..1307 E. Ewing Ave. (13)
Hill, Theodore A.....107 N. Eddy St. (17)
Hill, Wallace C.
919 E. Jefferson Blvd., #306 (22)
Holdeman, Lillian S.....228 S. St. Joseph St. (1)
Holdeman, Richard W..404 N. Lafayette Blvd. (1)
Holloway, Richard J.....211 N. Eddy (17)
Holtzman, Norman N.....1621 Hoover Ave. (15)
Horvath, George A.....211 N. Eddy (17)
Houser, D. Stanley.....2314 Miami (14)
How, Louis E.....1419 S. Michigan St. (13)
Hyde, Carroll C. (S).....211 N. Eddy (17)

J-K

Jankowski, Ernest B...411 S. Sheridan Ave. (19)
Johns, Nicholas C.....818 Sherland Bldg. (1)
Karn, John W.....414 Sherland Bldg. (1)
Keenan, Patrick J.....211 N. Eddy (17)
Kieffer, William J.....919 E. Jefferson Blvd. (22)
Knode, Kenneth T. (S)....729 Sherland Bldg. (1)
Krueger, John E.....414 Sherland Bldg. (1)
Kuhn, Frederick L.....1215 S. Michigan St. (18)

L

Lamb, J. Leonard.....825 Sherland Bldg. (1)
Lane, William H.....604 N. Michigan St. (1)
Levatin, Bernard I.
919 E. Jefferson Blvd., #303 (22)
Lionberger, John R.
919 E. Jefferson Blvd., #207 (22)
Liss, Emanuel C.....119 S. Eddy St. (17)
Lockhart, Philip B.
919 E. Jefferson Blvd., #107 (22)

M

MacDonell, Eldred H.....211 N. Eddy (17)
MacLeod, John K.....919 E. Jefferson Blvd. (22)
McCraley, William J.....218 S. Francis (37)
McFarland, Corley B.....211 N. Eddy (17)
McMeel, James.....1138 Whitehall Dr. (15)
McQuade, John A.....1522 Portage Ave. (16)
Macias, Rafael.....526 Sherland Bldg. (1)
Magnuson, Charles W.....211 N. Eddy (17)
Marquis, Gordon.....211 N. Eddy (17)
Martin, Charles F.....1438 Ridgedale Rd. (14)
Martinov, William E...919 E. Jefferson Blvd. (22)
Mason, Bernard A.....211 N. Eddy (17)
Mauzy, Merritt C.....216 Sherland Bldg. (1)
Metcalfe, Grant E.
919 E. Jefferson Blvd., #308 (22)
Mott, Cassell A. (S)
2733 Lincoln Way W. (28)
Mueller, Hilbert M.....211 N. Eddy (17)
Murphy, Josephine F.....111 W. Bartlett St. (1)
Myers, Philip R.....1002 Lincoln Way W. (16)

N-O

Neher, John L.....17615 State Rd. #23 (35)
Nelson, F. Dale.....704 N. Main St. (1)
Nelson, Raymond E.....206 E. Bartlett St. (1)
Nelson, Robert.....206 E. Bartlett St. (1)
Nichols, Harold G.....527 W. Colfax Ave. (1)
Olson, Donald T. 919 E. Jefferson Blvd., #309 (22)
Olson, Kenneth L.....919 E. Jefferson Blvd.,
#207 (22)
O'Malley, Patrick F.....525 Sherland Bldg., (1)
Oren, William F.....919 E. Jefferson Blvd.,
#301 (22)

P

Pairitz, Frank D.....60649 U. S. 31 S. (14)
Parsons, Robert.....919 E. Jefferson Blvd. (22)
Pascuzzi, Chris A.....531 N. Main St. (1)
Pauszek, Thomas B. (S)
704 W. Washington St. (1)
Petrass, Andrew (S).....516 Sherland Bldg. (1)
Phelps, Stephen R.....818 Sherland Bldg. (1)
Plain, George.....211 N. Eddy (17)
Plain, George Leroy.....211 N. Eddy (17)
Proudfit, Charles H.
919 E. Jefferson Blvd., #304 (22)
Pyle, Harold D.....119 S. Eddy St. (17)

R

Rasmussen, Ruth F.....211 N. Eddy (17)
Rice, Katherine K.....919 E. Jefferson Blvd.,
#206 (22)
Richards, Dean.....3123 S. Michigan St. (14)
Rigaux, Armand J.....316 N. Ironwood Dr. (15)
Roberts, Billy J.....3123 Mishawaka Ave. (15)
Rosenheimer, George M...604 N. Michigan St. (1)
Rubens, Eli.....2314 Miami (14)
Rudolph, Carl J.....110 W. Bartlett St. (1)

S

Sanderson, Robert B.....730 Sherland Bldg. (1)
Sandock, Louis F.....503 Sherland Bldg. (1)
Sandoz, Harry H.....612 Odd Fellows Bldg. (1)
Saucelo, Bart M.....1401 Lincoln Way W. (28)
Schiller, Herbert A.
919 E. Jefferson Blvd., #205 (22)
Scott, Frank M.....211 N. Eddy (17)
Sharp, Merle C.....717 N. Main St. (1)
Shelley, Edward S.....207 S. Taylor St. (25)
Shriber, William H.....211 N. Eddy (17)
Shriner, Richard Lee
919 E. Jefferson Blvd., #308 (22)

Sisson, Norvel D.....531 N. Main St. (1)
Skillern, Scott D.....422 Sherland Bldg. (1)
Slominski, Harry H. (S)
708 Odd Fellows Bldg.(1)
Sobol, Zbigniew W.....525 N. Michigan St. (1)
Spenner, Raymond W. (S) 726 Sherland Bldg. (1)
Speybroeck, Robert C.....1314 Kessler Pl. (16)
Staunton, Henry A.....3016 Mishawaka Ave. (15)
Stiver, Daniel D.....822 Sherland Bldg. (1)
Stogdill, William J.....318 Sherland Bldg. (1)
Stratigos, Joseph S.....527 N. Lafayette Blvd. (1)
Sweeney, Robert M.....211 N. Eddy (17)

T

Thompson, John M.....305 Sherland Bldg. (1)
Thompson, Robert A.
913 S. Twyckenham Dr. (15)
Thornton, Maurice J.....125 W. Marion St. (1)
Tirman, Wallace S.
919 E. Jefferson Blvd., #207 (22)
Traver, Perry C. (S)....1010 Riverside Dr. (16)
Troyer, Marlin L.....525 N. Michigan St. (1)

V-W-X-Y-Z

Vagner, S. Bernard..2201 Lincoln Way W. (28)
VanFleit, William E.
919 E. Jefferson Blvd., #407 (22)
Wack, James E.....530 W. Indiana Ave. (13)
Walker, Edwin M. Jr....501 N. Ironwood Dr. (15)
Ward, James W.....325 Wakewa (17)
Weiss, Eugene.....919 E. Jefferson Blvd. (22)
White, Donald G.....1815 Ireland Rd. (14)
Wilhelm, Agatha M..1032 E. Wayne at Eddy (17)
Wilson, James M.....919 E. Jefferson Blvd. (22)
Wind, Joseph L.....919 E. Jefferson Blvd. (22)
Wixted, John F...919 E. Jefferson Blvd., #1 (22)
Wixted, Julia L...919 E. Jefferson Blvd., #1 (22)
Zeiger, Irvin L.....3123 Mishawaka Ave. (15)

Fenstermacher, Robert E.....506 Michigan St., Walkerton (46574)
Rohrer, Bryce B.....506 Michigan St., Walkerton (46574)
Hillman, Marion W....Box 473, Westville (46391)
Cline, Kenneth L.....Box 57, Wyatt (46595)

Bassler, Carl R. (S).....R. R. # 4, Niles, Mich. (49120)
Calvin, O. Walter.....Karl Meyer Hall, 720-38 S. Wolcott St., Chicago, Ill. (60612)
Farner, James E.....2020 E. 93rd St., Cleveland, Ohio (44106)
Fish, Clyde M. (S)
R. R. # 2, Edwardsburg, Mich. (49112)
Rea, Thomas J.....Edwardsburg, Mich. (49112)
Walerko, Frank M.....1999 Sharondale Ave., St. Paul, Minn. (55113)

SCOTT COUNTY

Bogardus, Carl R.....61 Main St., Austin (47102)

Scottsburg

(*Zip Code* 47170)

Bacala, Jesus.....69 Wardell St.
Castro, Ignacio B., Jr.....685 Wanda St.
McClain, Marvin L.....935 First St.
Neathamer, Thomas A...N. Gardner & White Sts.

Bates, John C.....724 Sunrise Lane, Elizabethtown, Ky. (42701)

SHELBY COUNTY

Nigh, Rufus M.....Fairland (46126)
Davis, John A.....Flat Rock (47234)

Shelbyville

(*Zip Code* 46176)

Arata, Lucian A.....428 W. Hendricks St.
Dalton, Wilson L.....117 W. Washington St.
Deupree, William D.....23 W. Hendricks St.
Green, William L.....103 W. Washington St.
Inlow, Paul M.....103 W. Washington St.
Inlow, Robert P.....103 W. Washington St.
Inlow, William D. (S).....1100 Spring Hill Rd.
Miller, Richard C.....17 W. Mechanic St.
Moheban, Joseph.....120 W. Jackson St.
Paz, Luis.....103 W. Washington St.
Richard, Norman F.....103 W. Washington St.
Scott, V. Brown.....103 W. Washington St.
Silbert, David B.....17 S. Tompkins
Spindler, Robert D.....165 W. Mechanic St.
Tindall, William R.....505 S. Harrison St.
Tower, James H., Jr.....124 W. Franklin St.
Whitcomb, Roger F.....120 W. Jackson St.

SPENCER COUNTY

Medcalf, Norman L. (S).....Lamar (47550)
Jolly, Wesley P. (S).....Richland (47634)
Glackman, John C., Jr.
6th and Main Sts., Rockport (47635)
Monar, Michael.....6th and Main Sts., Rockport (47635)

STARKE COUNTY

Leinbach, Earl R.....Hamlet (46532)

Knox

(*Zip Code* 46534)

DeNaut, James F.....4 N. Heaton St.
Henry, Howard J.....107 S. Main St.
Ingwell, Guy B.....201 S. Heaton St.
McClure, Clark.....107 S. Main St.
Palmer, W. Allen.....107 S. Main St.

STEUBEN COUNTY

Angola

(*Zip Code* 46703)

Artz, Richard W.....416 E. Maumee
Barton, Robert.....416 E. Maumee
Cameron, Don F.....416 E. Maumee
Cameron Mary H.....416 E. Maumee
Crum, Marion M.....301 E. Maumee
Davis, Claude E.....909 W. Maumee
Hartman, John J.....909 W. Maumee
Kissinger, Knight L.....411 E. Gilmore
Mason, Donald G.....112 S. Wayne St.
Rausch, Norman W.....416 E. Maumee
Schrepferman, Wayne.....Hamilton (46742)

Yocum, Paul S., Sr.....4826 Alhambra Circle, Coral Gables, Fla. (33146)

SULLIVAN COUNTY

Brown, John S.....Carlisle (47838)
Dukes, Betty.....Dugger (47848)
Dukes, Joe.....Dugger (47848)
Bethea, Robert O.....Farmersburg (47850)
Hernandez, Antonio.....Shelburn (47879)

Sullivan

(*Zip Code* 47882)

Bedwell, Marion H.....16 N. Court St.
Crowder, James H.....112 N. Section St.
Eskew, Kenneth W.....117 W. Washington St.
McClure, Glen.....777 N. Wolfenberger
Maple, James B. (S).....116 S. Section St.
Scott, Irvin H.....117 W. Washington St.

Daugherty, William L.....Hutsonville, Ill. (62433)
Taylor, John R.....105 N. Main, Palestine, Ill. (62451)

SWITZERLAND COUNTY

(See Jefferson-Switzerland)

TIPPECANOE COUNTY

Bahler, Dean R.....Brookston (47923)
Derhammer George L.....Brookston (47923)
Gish, Howard M.....Brookston (47923)
Dublin, Madeline P.....Francesville (47946)

Lafayette

(*Zip Code* 47904 *unless otherwise indicated.*)

Ade, Charles H.....2211 South St.
Ade, Mary Keller.....2211 South St.
Arvin, Delano Z.....2600 Greenbush
Balkema, Catherine M.....3 N. 18th St.
Bayley, William E.....303 S. Ninth St. (47901)
Beuerman, V. A. .....2600 Greenbush St.
Bolin, Robert C.....2600 Greenbush St.
Bridge, Barton C.....Jefferson Square (47905)
Buhrmester, Harry C.....2600 Greenbush St.
Burns, John T.....5 N. 25th St.
Bush, Jack A.....405 Life Bldg. (47901)
Calvert, Raymond R.....314 N. Sixth St. (47901)
Canganelli, Vincent G.....2433 S. Ninth St. (47905)
Carpenter, James B.....49 N. 26th St.
Cartwright, Glen W.....2600 Greenbush St.
Cole, Ira (S).....2315 South St.
Coyner, Alfred B. (S).....509 Life Bldg. (47901)
Davis, Grayson B.....15 N. 25th St.
Davis, Howard B.....2600 Greenbush St.
Deur, Julius J.....1011 Columbia (47901)
Donahue, George R.....718 Life Bldg. (47901)
DuBois, Ramon B.....324 N. 25th St.
Eaton, Marion J.....214 Life Bldg. (47901)
Elliott, Paul W.....St. Elizabeth Hospital
Engeler, James E.....2600 Greenbush St.
Evans, David L.....2424 Ferry St.
Ferguson, William B.....2525 South St.
Fields, Don C.....2600 Greenbush St.
Flack, Russell A.....1005 Life Bldg. (47901)
Foster, John A.....St. Elizabeth Hospital
Fox, Richard F.....2600 Greenbush St.
Frasch, Mahlon G.....300 Life Bldg. (47901)
Frey, Harley H., Jr.....405 Life Bldg. (47901)
Fritch, John M.....701 S. 21st St. (47905)
Gery, Richard E.....2600 Greenbush St.
Gripe, Richard P.....2600 Greenbush St.
Haas, Charles F.....2211 South St.
Hannemann, Robert E.....2600 Greenbush St.
Harter, Eli B.....2600 Greenbush St.
Harvey, Bennett B.....35 N. 25th St.
Heid, George J., Jr.....35 N. 25th St.
Herrold, George W.....2 N. 26th St.
Holladay, Lloyd J.....411 Life Bldg. (47901)
Horswell, Richard R.....2600 Greenbush St.
Hughes, Anson F.....2424 Ferry St.
Hughes, Richard R.....1000 N. 14th St.
Hull, James E.....2211 South St.
Hunsberger, Walter G.....2600 Greenbush St.
Hunter, Frank P. (S).....617 Life Bldg. (47901)
Johnson, Herbert S.....2600 Greenbush St.
Karberg, Richard J.....2420 Ferry St.
Klatch, Ben Z.....2211 South St.
Klepinger, Harry E.....724 Life Bldg. (47901)
Kohne, Robert W.....3010 Underwood
Kuipers, Fred M.....2600 Greenbush St.
Landis, Charles B.....2211 South St.
Lempke, Lloyd W.....2211 South St.
Lind, Jaap J.....2600 Greenbush St.
Loop, Frederick A.....2420 Ferry St.
McAdams, Robert.....2011 Kossuth St. (47905)
McFadden, James M.....35 N. 25th St.
McKinley, Joseph.....312 Life Bldg. (47901)
McPherson, Richard C.....2600 Greenbush St.
Marsh, George W.....1216 Howell
Marvel, Howard R.....2600 Greenbush St.
Mather, Charles R.....2600 Greenbush St.
Mather, Robert L.....1016 Life Bldg. (47901)
Mentzer, William G.....2424 Ferry St.
Miller, Albert J.....35 N. 25th St.
Miller, Roland E.....2200 Scott St.
Miller, William J.....2600 Greenbush St.
Mount, William M.....20 N. 24th St.
Neumann, Kenneth O...300 Main St., Room 618-20 (47901)
Onorato, Joseph J.....2433 S. Ninth St. (47905)
Peyton, Frank W.....2424 Ferry St.
Pickerill, James M.....301 Life Bldg. (47901)
Ralston, Marc A.....2600 Greenbush St.
Ramsey, George F.....2600 Greenbush
Randall, Thomas A.....Home Hospital
Ratcliff, Frank W.....405 Life Bldg. (47901)
Riggs, Wendell A.....2600 Greenbush St.
Rothrock, Philip W.....2200 Scott St.
Ruschli, Edward B. (S).....510 Life Bldg. (47901)
Rutherford, Charles E.....2315 South St.
Scheeres, Jacob W.....2302 Kossuth (47905)
Shively, John L.....2525 South St.
Sholty, William M.....405 Life Bldg. (47901)
Smith, Lowell C.....637 Ferry St. (47901)
Stahl, Edward T.....2600 Greenbush St.
Steele, Hugh H.....2600 Greenbush St.
Strayer, Joseph W.....612 Life Bldg. (47901)
Stuntz, Edgar C.....Wabash Valley Hospital
Trout, Carl J.....314 N. Sixth St. (47901)
Trout, David J.....314 N. Sixth St. (47901)
Tubbs, George R. (S).2502 Iroquois Trail (47905)
Underwood, George M.....Jefferson Square (46905)
Van Buskirk, Edmund L.....2600 Greenbush St.
Van Den Bosch, Wallace R.....2216 South St.
Vermilya, Robert W.....405 Life Bldg. (47901)
Wagner, Anabel.....405 Life Bldg. (47901)
Wagner, Lindley.....2424 Ferry St.
Waits, Chester L.....49 N. 26th St.

Webster, Paul L.....2600 Greenbush St.
Weida, Jerry M.....301-5 Life Bldg. (46901)
Weller, Wendell A.....2600 Greenbush St.
Wong, Norman F.....15 N. 25th St.

Peterson, Joel A. (S).....R. R. 5, Monticello (47960)
Crouse, Ben E.....Mulberry (46058)
Babb, Forrest J.....Stockwell (47983)
McKinney, Daniel H.....801 S. 52nd St., Apt. 811, Omaha, Neb. (68106)

West Lafayette

(*Zip Code* 47906)

Baker, John R.....2321 Carmel Dr.
Brady, Kingdon.....612 Terry Lane
Carpenter, Robert S.....207 North St.
Carroll, Bertha Rose.....1125 Glenway
Fitzgerald, Brice E.....Purdue Health Center
Hass, Caroline E.....402 Northwestern Ave.
Hass, Thomas W.....402 Northwestern Ave.
Heasty, Alfred R.....Purdue Health Center
Hunter, Dean M.....402 Northwestern Ave.
Jones, David M.....Purdue Health Center
Keplinger, James E.....402 Northwestern Ave.
McAdams, Hugh B.....Purdue Health Center
Martin, Joe M.....2900 N. River Rd.
Ricchetti, Warren F.....874 Rose St.
Roggenkamp, Milton W.....144 Arrowhead Dr.
Rommel, Clarence H.....456 Northwestern
Russell, Henry T.....746 Northridge
Schmiedicke, Paul H.....Purdue University
Spurlock, Fae H.....Purdue Health Center
Van Kirk, John R.....2496 Sycamore Lane
Yegerlehner, Roscoe S.....118 Juniper Ct.

TIPTON COUNTY

Haller, Robert L.....Kempton (46049)
Stouder, Albert E.....Kempton (46049)

Tipton

(*Zip Code* 46072)

Burkhardt, Boyd A.....202 S. West St.
Carter, Jean V. (S).....130 N. Main St.
Compton, George L.....219 N. Independence
Gossard, Meredith B.....308 N. Independence
Kincaid, Raymond K.....202 S. West St.
Kurtz, William A.....202 S. West St.

Ericson, Harold L.....Windfall (46076)
Moser, Elmer B. (S).....Windfall (46076)
Tranter, William F.....2337 Flora Ave., Ft. Myers, Fla. (33901)

UNION COUNTY

(See Wayne-Union)

VANDERBURGH COUNTY

Evansville

(*Zip Code 477 plus zone number.*)

A

Acre, Robert R. (S).....3700 Bellemeade (15)
Adler, Raymond N.....714 Second Ave. (10)
Adye, Wallace M., Jr...1307 N. Stringtown Rd. (11)
Alexander, John E.....2263 E. Tennessee St. (11)
Allen, William H.....715 First Ave. (10)
Anderson, Milton H...Evansville State Hosp. (2)
Antes, Earl H.....420 Cherry St. (13)
Arendell, Robert E.....1666 S. Lodge Ave.(14)
Austin, Eugene W.....3700 Bellemeade (15)

B

Baker, Herman M. (S).....715 First Ave. (10)
Baker, Sam B.....Deaconess Hospital (10)
Barnhart, Willard T.....701 Chestnut St. (13)
Beck, Robert E.....715 First Ave. (10)
Begley, Joseph W., Jr. 314 S. E. Riverside Dr. (13)
Beisel, Larry H.....420 Cherry St. (13)
Bender, Martin J.....912 Hulman Bldg. (8)
Bendush, Cecil L.....Mead Johnson Research Center (21)
Bennett, Abner P.....412 S. E. Fourth St. (13)
Bissonnette, Roger P.....420 Cherry St. (13)
Bloss, Bryant A.....715 First Ave. (10)
Boone, Robert D.....420 Cherry St. (13)
Boswell, Robert W. C.....2351 Division St. (14)
Boyle, Carroll L.....715 First Ave. (10)
Brakel, Frank J., Jr.....420 Cherry St. (13)
Britt, Robert L.....420 Cherry St. (13)
Brockmole, Arnold W.....201 S.E. Third St. (13)
Brooks, Edwin A.....5620 Kratzville Rd. (10)
Brown, Robert L.....419 Edgar St. (10)
Bryan, Stanton L.....607 Hulman Bldg. (8)
Buddrus, David J.....Mead Johnson & Co., 2404 Pennsylvania St. (21)
Buehner, Donald F.....3700 Bellemeade (15)
Burger, Thomas C.....3700 Bellemeade (15)
Burnikel, Ray H.....2709 Washington Ave. (14)

C

Carlson, Ralph F.....527 Sycamore St. (08)
Cates, Jeryl R.....3700 Bellemeade Ave. (15)
Challman, William B.....715 First Ave. (10)
Clark, Thomas W.....420 Cherry St. (13)
Clouse, Paul A.....613 S. Weinbach Ave. (14)
Cockrum, William M.....908 Hulman Bldg. (8)
Coleman, Joseph E.....3700 Bellemeade (15)
Combs, Herman T.....807 W. Indiana (10)
Combs, John H.....412 S. E. Fourth St. (13)
Cooper, Waller W.....Deaconess Hospital (10)
Corcoran, Patrick J. V.....3700 Bellemeade (15)
Cox, J. Bruce.....420 Cherry St. (13)
Crawford, James H.....221 Chestnut St. (13)
Crevello, Albert J.....3700 Bellemeade (15)
Crimm, Paul D.....Boehne Hospital (12)
Crudden, Charles H...Clearview Sanitarium (10)
Cullnane, Chris W.....2312 W. Franklin St. (12)

D

Davidson, Harold H.....420 Cherry St. (13)
Davis, Kenneth D.....420 Cherry St. (13)
Denzer, Edward K.....108 S. E. Third St. (8)
Denzer, William O.....923 Bellemeade (13)
Dieckman, Herbert S.....3700 Bellemeade (15)
Dodd, Roberts K.....2042 Lincoln Ave. (14)
Downer, Luther H.....615 Oak Street (13)
Drake, Dale W.....St. Mary's Hospital (10)
Durkee, Melvin S.....3700 Bellemeade (15)
Dycus, Walter A.....319 N. St. Joseph Ave. (12)
Dyer, Wallace K.....3700 Bellemeade (15)

E

Ebin, Judah L.....101 S. E. Third St. (8)
Engel, Edgar L.....126 S. E. Seventh St. (8)
Ewer, Robert W.....420 Cherry St. (13)

F

Faul, Henry J.....815 Hulman Bldg. (8)
Faw, Melvin L.....420 Cherry St. (13)
Fenneman, Robert J.....402 S. E. Seventh St. (13)

G

Garland, Edgar A.....606 S. Weinbach (14)
Garst, Garland R.....3700 Bellemeade (15)
Gaul, L. Edward.....509 Hulman Bldg. (8)
Geller, Samuel.....R. R. 8, Box 143A (11)
Getty, William H.....420 Cherry St. (13)
Giorgio, Douglas J.....916 S. Burkhardt Rd. (15)
Gourieux, E. De Verre.....3700 Bellemeade (15)
Griep, Arthur H.....5414 Madison Ave. (15)
Grimm, William C. H., Jr.....420 Cherry St. (13)
Guckien, Joseph L.....715 First Ave. (10)

H

Hachmeister, Charles W.
2301 W. Michigan St. (12)
Hammond, R. Case.....701 Chestnut St. (13)
Hare, Daniel M.....701 Chestnut St. (13)
Hargett, Isaac R.....420 Cherry St. (13)
Harlan, William L.....3700 Bellemeade (15)
Harned, Ben K., Jr.....420 Cherry St. (13)
Harris, Robert L.....2014 E. Morgan (11)
Hart, L. Paul.....3700 Bellemeade (15)
Hartley, Clarence A., Jr...221 Chestnut St. (13)
Hartz, F. Minton.....123 S. E. Second St. (8)
Hassel, Walter B.....3712 Herndon Dr. (11)
Healy, Cornelius E.....420 Cherry St. (13)
Heard, Albert.....322 E. Cherry St. (13)
Heimburger, Irvin L.....527 Sycamore St. (8)
Heinrich, Weston A...314 S. E. Riverside Dr. (13)
Hendershot, Eugene L...412 S. E. Fourth St. (13)
Hermayer, Stephen....220 S. E. Seventh St. (13)
Hermann, Harold W.....Mead Johnson & Co.,
2404 Pennsylvania Ave. (21)
Herrmann, Gordon T.....3700 Bellemeade (15)
Herzer, Clarence C.....322 N. Fulton (10)
Heumann, John E.....715 First Ave. (10)
Himebaugh, Gilbert J.....115 N. Weinbach (11)
Hironimus, John E.....314 E. Riverside Dr. (13)
Hobbs, Arthur A.....715 First Ave. (10)
Hobgood, James L., Jr...7527 Taylor Circle (15)
Hoopes, Jane M.....3700 Bellemeade (15)
Hoover, J. Guy.....527 Sycamore St. (8)
Hovda, Richard B.....3700 Bellemeade Ave. (15)
Huggins, Victor S.....715 First Ave. (10)

J

Johnson, Victor.....2301 W. Michigan St. (12)
Johnson, Stephen L.....521 Sycamore St. (8)

K

Kauffman, Harley M. (S)....219 Walnut St. (8)
Kelly, John B.....420 Cherry St. (13)
Kessler, Robert B.....1338 Division St. (14)
Kiechle, Frederick L.....1018 Parrett St. (13)
Kimmel, George E.....429 S. St. James Blvd. (14)
Kincaid, Robert S.....1000 N. Spring St. (11)
Kleindorfer, Roscoe L.....3214 E. Chandler (15)

L

Langsam, Charles L.....4511 Bellemeade (15)
Laubscher, Clarence.....1201 Laubscher Rd. (10)
Lawler, John F.....420 Cherry St. (13)
Lawrence, Joseph C.....715 First Ave. (10)
Leibundguth, Henry.....3700 Bellemeade (15)
Leich, Charles F.....124 S. E. First St. (8)
Lessure, Alfred P.....420 Cherry St. (13)
Longstaff, John P.....200 Cherry St. (13)
Lynch, Harold D.....848 Sunset Ave. (13)

M

MacKenzie, Pierce.....326 S.E. Seventh St. (13)
McCool, Joseph H.....1 Woodmere Lane (11)
McDonald, Joseph D.....517 Sycamore St. (8)
Marvel, James A.....420 Cherry St. (13)
Mason, Everett E.....118 S. E. First St. (8)
Mathews, James R.....715 First Ave. (10)
Miller, LaVerne B.....1421 N. Main St (11)
Miller, Marshall S.....420 Cherry St. (13)
Miller, Milton J.....15 W. Franklin St. (10)
Mills, Fred E.....Deaconess Hospital (10)
Mino, Robert A.....723 Mary St. (10)
Mitchell, John B.....Mead Johnson & Co.,
2404 Pennsylvania St. (21)
Moulton, Lillian G.....1 N. Barker (12)
Muelchi, Adeline F. (S)....518 Hulman Bldg. (8)
Mullican, William S., Jr.....715 First Ave. (10)
Murphy, Edward U.....901 Hulman Bldg. (8)

N

Nenneker, Henry (S)..1912 Harmony Way (12)
Newnum, Raymond L.....3700 Bellemeade (15)
Newsome, Cola K.....415 E. Mulberry (13)
Newton, Roger E.....Mead Johnson & Co.,
939 Bond St., Mid-Town Center (8)
Nicholson, Raymond W.....3700 Bellemeade (15)
Niedermayer, Alfred J. 960 Washington Ave. (13)
Nonte, Leo R.....715 First Ave. (10)

O

Oswald, Robert H.....326 S.E. Seventh St. (13)

P

Pastor, Julius W.....3700 Washington Ave. (15)
Pavlick, Theodore J.....908 Hulman Bldg. (8)
Pemberton, Jack J.....319 N. St. Joseph Ave. (12)
Porro, Francis W.....3700 Washington Ave. (15)
Present, Julian D.....3700 Bellemeade (15)
Price, Shirley G.....420 Cherry St. (13)
Pugh, Willis L.....715 First Ave. (10)

R

Radcliff, Forest F., Jr.....3700 Bellemeade (15)
Ratcliffe, Albert W.....P. O. Box 624
Reich, Clarence E.....1209 N. Fulton (10)
Rietman, H. Jerome
19 Chandler, off Riverside (13)
Ritchie, William D.....555 Herndon Dr. (11)
Ritz, Albert S.....3700 Bellemeade (15)
Rosato, Edward J.....3700 Bellemeade (15)
Rosenblatt, Bernard B.....502 Hulman Bldg. (8)
Royster, George M. (S)
401 Citizens Nat'l. Bank Bldg. (8)
Royster, Robert A.....3700 Bellemeade (15)
Rudolph, Kenneth J.....3700 Bellemeade (15)
Rusche, Henry J.....313 W. Iowa (10)
Rusche, Thomas J.....5089 Tippecanoe Dr. (15)
Russell, Richard H...3700 Washington Ave. (15)

S

Schimmelpfennig, Robert W.
1013 Parrett St. (13)
Schirmer, Robert H.....1118 W. Franklin St. (10)
Schneider, Charles P...2211 W. Franklin St. (12)
Schriefer, Victor V.....1120 N. Main St. (11)
Sheehan, E. Gregg.....420 Cherry St. (13)
Shively, Wyant J.....3700 Washington Ave. (15)
Siegel, Lyle P.....500 Oriole Dr. (15)
Sims, Larry W.....3700 Bellemeade (15)
Sinn, Charles M.....715 First Ave. (10)
Slaughter, Howard C.....908 Hulman Bldg. (8)
Slaughter, John C., Jr.....3700 Bellemeade (15)
Slaughter, Owen L.....3700 Bellemeade (15)
Smith, Gordon L.....19 Chandler Ave. (13)
Smith, Roy M., Jr.....1307 Stringtown Rd. (11)
Snively, William D., Jr.....Mead Johnson & Co.,
2404 Pennsylvania St. (21)
Sprecher, Herman C...2709 Washington Ave. (14)
Springstun, Walter R.....715 First Ave. (10)
Stallings, Hugh A.....3700 Bellemeade (15)
Steele, Paul W.....1218B Lincoln Ave. (14)
Sterne, John H.....3700 Bellemeade (15)
Stewart, L. Ray.....852 S. Alvord Blvd. (14)
Stork, Urban F. D.....420 Cherry St. (13)
Strueh, Paul E.....220 S. E. Seventh St. (13)
Swan, Robert E.....420 Cherry St. (13)

T

Tilden, Margaret H.....624 W. Virginia St. (10)
Tisserand, John B., Jr.....3700 Bellemeade (15)
Tuholski, James M.....Mead Johnson & Co.,
2404 Pennsylvania St. (21)
Turner, Isabel B...Evansville State Hospital (2)
Tweedall, Daniel C.....715 First Ave. (10)

U-V

Venables, Albert J.....600 Mary St. (10)
Viehe, Robert W. (S)....618 S. Willow Rd. (14)
Vincent, William A.....420 Cherry St. (13)
Visher, John W. (S)
510 E. Mt. Pleasant Rd. (11)
VonderHaar, Thomas E.....715 First Ave. (10)

W

Walter, Paul A. F., III.....Mead Johnson & Co., 2404 Pennsylvania St. (21)
Walter, Robert F.....1514 S. Kentucky Ave. (14)
Warner, Charles L.....420 Cherry St. (13)
Weber, Edgar H.....123 S. E. Second St. (8)
Weiss, Henry G. (S).....601 N. Boeke Rd. (11)
Welborn, Mell B.....420 Cherry St. (13)
Westerman, Richard L.....Mead Johnson & Co., 2404 Pennsylvania St. (21)
Wilhelmus, Gilbert M...1028 Washington Ave. (14)
Wilhelmus, Kenneth.....1100 Lincoln Ave. (14)
Willis, Charles F.....1100 S. Bedford Ave. (13)
Willison, George W.....3700 Bellemeade (15)
Wilson, David.....615 Willow (14)
Wilson, John D.....3700 Bellemeade (15)
Wilson, Ralph.....517 Mary St. (10)
Woodward, Ben E.....420 Cherry St. (13)

X-Y-Z

Young, C. Curtis, Jr.....326 S.E. Seventh St. (13)
Zeier, Francis G.....420 Cherry St. (13)
Zimmerman, Harold.....6 S. E. Second St. (8)
Ziss, Robert C.....216 S. E. Riverside (13)
Zwickel, Ralph E.....906 Hulman Bldg. (8)

Boyd, Stella N.....R. R. 2, Oakland City (47560)
Woodall, Robert L.....1409 North St., Washington (47501)
Ehrich, William S. (S)
29-23 171st St., Flushing N.Y. (11358)
Newman, Alvin E. (S)
2937 Coral Shores Dr., Ft. Lauderdale, Fla. (33306)
Spindler, Richard G.....665 Talomar Dr., Apt. 117, Pensacola, Fla. (32507)

VERMILLION COUNTY

(See Parke-Vermillion)

VIGO COUNTY

Loving, Jury B.....New Goshen (47863)
McIntosh, Wilbert.....Riley (47871)
Jett, Clyde W.....Seelyville (47878)

Terre Haute

(*Zip Code* 478 *plus zone number*).

A

Anderson, Walter C.....2235 Wabash Ave. (07)
Ault, Roy J.....3050 Poplar St. (03)

B

Bannon, William G.
500 Rose Dispensary Bldg. (01)
Bloxdorf, John W.....P.O. Box 1468 (08)
Blum, Leon L.....1505 N. Seventh St. (08)
Bopp, Henry W., Jr.....221 S. Sixth St. (01)
Bopp, James.....Union Hospital (08)
Boyd, H. Clark.....221 S. Sixth St. (01)
Bristol, Henry M. S.....1024 S. Sixth St. (07)
Bronson, Paul J. (S).....3050 Poplar St. (03)
Brown, Robert R.....221 S. Sixth St. (01)
Burkle, Robert J.....3050 Poplar St. (03)

C

CaJacob, Melville E.....1000 S. Sixth St. (07)
Caldwell, Milton V.....416 Tribune Bldg. (01)
Carpenter, Donald J.
507 Rose Dispensary Bldg. (01)
Carter, Robert A.....1235 Ohio St. (07)
Cavins, Alexander W.....221 S. Sixth St. (01)
Chau, Andrew Y. S.....405 S. Sixth St. (01)
Combs, Stuart R.....3050 Poplar St. (03)
Conklin, James O...310 Rose Dispensary Bldg. (01)
Connerley, Marion L.....107 S. Seventh St. (01)
Conway, Thomas J.....221 S. Sixth St. (01)
Cristee, James W.
500 Rose Dispensary Bldg. (01)
Crockett, Wayne A.....1024 S. Sixth St. (07)

D

Davis, Paul E.....1233 Maple Ave. (04)
Dierdorf, Fred W.....Union Hospital (08)
Drummy, William W.....221 S. Sixth St. (01)
Dunn, Latimer E.....1021 S. Sixth St. (07)
Dyer, George W.....2235 Wabash Ave. (07)

E

Edwards, Henry G...6 Rose Dispensary Bldg. (01)
Ensey, Philip L...Indiana State University (09)

G

Gerrish, Donald A.....5206 Clinton Road (05)
Goodman, Hubert T.
410 Rose Dispensary Bldg. (01)
Gossom, Donn R.....825 N. Third St. (07)

H

Harkness, Robert G. (S)
301 Rose Dispensary Bldg. (01)
Haslem, Ezra R.....4951 Dixie Bee Rd. (02)
Haslem, John R.....221 S. Sixth St. (01)
Hetherington, John A.
414 Merchants Bank Bldg. (01)
Hogan, Thomas W.....627 Cherry St. (01)
Hoover, Dewey A.....1218½ Wabash Ave. (01)
Humphrey, Paul E.....1235 Ohio Blvd. (07)
Hunt, Edgar J. (S).....R. R. 1 (02)

J

Johnson, Edward M.....221 S. Sixth St. (01)
Johnson, Paul D., Jr.....62 Allendale Pl. (02)
Justin, Renate G.....901 S. 25th St. (03)

K

Kabel, Robert N.....3050 Poplar St. (03)
Krieble, William W.....221 S. Sixth St. (01)
Kunkler, Arnold W.....1700 N. Seventh St. (04)
Kunkler, Joseph (S).....14 S. Fifth St. (01)
Kunkler, William C. (S)
212 Merchants Nat'l. Bank Bldg. (01)

L

LaBier, Clarence R., Jr.....325 Ohio St. (01)
Lancet, Robert O.....221 S. Sixth St. (01)
Lee, James.....465 S. 25th St. (03)
Lenyo, Ludimere.....221 S. Sixth St. (01)
Lo, Loretta S. Y.....405 S. Sixth St. (07)
Loewenstein, Werner L..1537 S. Seventh St. (02)
Lyons, L. Mason.....59 S. 18th St. (07)

M

McAleese, George B.....1030 S. Sixth St. (07)
McBride, Noel S.
407 Merchants Nat'l. Bank Bldg. (01)
McCrea, Fred R.....221 S. Sixth St. (01)
McEwen, James W.....670 Cherry St. (01)
McLaughlin, Gordon C.....1644 S. 25th St. (03)
Malone, Leander A.....416 Tribune Bldg. (01)
Mankin, William J.....402 Tribune Bldg. (01)
Mason, Lester M.
314 Merchants Nat'l. Bank Bldg. (01)
Mattox, Don M.....1700 N. Seventh St. (04)
Meissel, Robert L.....920 N. 19th St. (07)
Miklozek, John E.....660 Idaho (02)
Milleson, Ann L. M.....826 S. Center St. (07)
Mitchell, John R.....221 S. Sixth St. (01)
Moore, Gene.....903 S. 25th St. (03)
Musselman, Glen G.....1021 S. Sixth St. (07)

N-O

Nay, Ernest O. (S).....221 S. Sixth St. (01)
Neudorff, Louis G.....221 S. Sixth St. (01)
Oliphant, Robert W.....1603 S. Seventh St. (02)

P

Pearce, Roy V.....1440 S. 25th St. (03)
Peterson, Deward D.....221 S. Sixth St. (01)

R

Reed, Robert C.....Union Hospital (08)
Reynolds, Richard J.....2250 Wabash Ave. (07)
Richart, James V...414 Rose Dispensary Bldg. (01)
Riggs, Floyd C. (S).....137 S. 24th St. (03)
Rogers, R. Shirrell.....1101 S. Sixth St. (02)
Rourke, Robert F.....1724 N. Seventh St. (04)
Rubin, Milton M.....221 S. 19th St. (07)

S

Sayers, Frank E. (S)....436 Bluebird Dr. (03)
Scherb, Burton E.....104 N. Seventh St. (01)
Schumaker, Robert A.....3050 Poplar St. (03)
Scully, William E.....221 S. Sixth St. (01)
Shanklin, Vernon A. (S).672½ Wabash Ave. (01)
Showalter, John R.....1223 Maple Ave. (04)
Siebenmorgen, Paul.....1024 S. Sixth St. (07)
Silverman, Norman M.....1024 S. Sixth St. (07)
Sison, Rose D.....1024 S. Sixth St. (07)
Sison, Vicente G.....3050 Poplar St. (03)
Speas, Robert C.....402 Tribune Bldg. (01)
Stoelting, J. Lewis....1724 N. Seventh St. (04)
Strecker, William L.....1024 S. Sixth St. (07)
Sullivan, John M.....1712 Franklin St. (02)

T-U-V

Topping, Malachi C.....3050 Poplar St. (03)
Vance, William C...Indiana State University (09)
Veach, William L.....1235 Ohio St. (07)
Voges, Edward C.....702 College Ave. (02)

W

Walden, Heinz J.....213 Gilbert Ave. (07)
Weber, Joseph G. S.....723 Wabash Ave. (01)
Weinbaum, Jack G.....1505 N. Seventh St. (07)
West, Roger F.....221 S. Sixth St. (01)
Wheeler, Byron C.....3050 Poplar St. (03)
Wilson, Fred L.....1501 S. Third St. (02)

X-Y-Z

Yates, Donald L.....221 S. Sixth St. (01)
Zwerner, Paul F.....2100 N. 12th St. (07)

WABASH COUNTY

Poehler, Fred C.....La Fontaine (46940)

North Manchester
(*Zip Code* 46962)

Balsbaugh, George K.....107 W. Seventh St.
Bunker, Ladoska Z.....201 N. Mill St.
Cook, Charles E.....114 W. Main St.
Eiler, Paul A.....1104 N. Wayne St.
Seward, George W.....111 E. Main St.
Silvers, Michael.....1104 N. Wayne St.
Smith, Lloyd H.....1104 N. Wayne St.

Wabash
(*Zip Code* 46992)

Boaz, William D.....645 N. Spring St.
Dannacher, William D.....400 Ash St.
Dragoo, John R.....400 Ash St.
Dunham, Henry H.....1025 Manchester
Dziabis, Marvin D.....R. R. #3
Ellis, David L.....400 Ash St.
Elward, Carl J.....1025 Manchester
Gatzimos, Christos D....Wabash County Hospital
Hanneken, Vincent J.....119 Highland Dr.
LaSalle, Richard M.....645 N. Spring St.
LaSalle, Robert M., Jr.....645 N. Spring St.
LaSalle, Robert M., Sr.....R. R. #4
Mernitz, Roland B., Jr.....400 Ash St.
Mills, John F.....24 E. Main St.
Pearson, William E.....290 N. Wabash
Rauh, Robert A.....400 Ash St.
Smyrniotis, Frank.....645 N. Spring St.
Steffen, Julius T.....443 N. Wabash
Stoops, Jean T.....400 Ash St.
Zydlo, Stanley M.....1025 Manchester

Kidd, James G. (S).....720 West Racine St., Apt. B, Jefferson, Wis. (53549)

WARREN COUNTY

(See Fountain-Warren)

WARRICK COUNTY

Boonville
(*Zip Code* 47601)

Hoover, Peter B.....223 W. Locust St.
Martin, Noel J.....214 S. Second St.
Stover, Wendell C.....125½ S. Second St.
Terry, Robert H.....316 S. Third St.

Dimmett, James D.....Chandler (47610)
Colvin, Robert C.....Newburgh (47630)

WASHINGTON COUNTY

Tower, Thomas K.....Campbellsburg (47108)
Manship, C. Stanley.....Hardinsburg (47125)
Carty, Charles B.....Pekin (47165)

Salem
(*Zip Code* 47167)

Apple, Eddie R.....501 W. Market St.
Chastain, Truman L.....906 W. Mulberry St.
Coleman, Henry G.....Mitchell Bldg.
Episcopo, Arsenius R.....R. R. #3
Fultz, Roy L.....304 E. Market St.
Huckleberry, Irvin E. (S)....502 W. Mulberry St.

WAYNE-UNION COUNTIES

Hill, Paul G.....Cambridge City (47327)
Kenyon, C. Emil.....Cambridge City (47327)
Barton, Willoughby M.....Centerville (47330)
Hutchison, Donald R.....Fountain City (47341)
Leonard, Dale F.....Hagerstown (47346)

Liberty
(*Zip Code* 47353)

Lewis, James F.....28 E. Union St.
McWilliams, William B. (S).....R. R. 2

Richmond
(*Zip Code* 47374)

Adney, Frank B., Jr.....1015 S. A St.
Ake, Loren.....213 Medical Arts Bldg.
Allen, Robert T.....34 S. Seventh St.
Anderson, Robert C.....Richmond State Hosp.
Ballenger, William E.....309 Medical Arts Bldg.
Banez, Ramon V.....313 Medical Arts Bldg.
Blossom, Paul W.....825 S. A St.
Brooks, G. Tanner.....29 S. 12th St.
Buche, Frederick P. (S).....106 S. Seventh St.
Cabigas, Jose S.....2000 W. Main St.
Clarkson, Clarence G.....1350 Chester Blvd.
Clouse, John F.....307 Medical Arts Bldg.
Coble, Frank H.....51 S. Eighth St.
Cox, Leon T.....1210 E. Main St.
Curiel, Hector J.....2000 W. Main St.
Daggy, James R.....35 S. Eighth St.
Deanovic, Frank W.....107 Medical Arts Bldg.
Dehner, John R.....Reid Memorial Hospital
Dingle, Paul E.....127 Medical Arts Bldg.
Dreyer, Ralph W.....2 S.W. 17th St.
Ebbinghouse, Tom.....98 W. Main St.
Gibson, Alois E.....1250 Chester Blvd.
Guthrie, James R.....100 N. 15th St.
Hagie, Franklin E.....100 N. 15th St.
Harmon, Carl J.....311 Medical Arts Bldg.
Hawk, Edgar A.....616 Garwood Rd.
Hibner, Dan W.....307 Medical Arts Bldg.
Hill, Gladys Marie.....407 Medical Arts Bldg.
Hunt, Gayle J.....425 S. 19th St.

Johnson, George M.....1250 Chester Blvd.
Klepfer, Jefferson F....Richmond State Hospital
Kreitl, Dorothy R.....Richmond State Hospital
Lee, Glen Ward.....100 N. 15th St.
Ling, John F.....1250 Chester Blvd.
Logan, James Z..... ..84 S. 14th St.
Loomis, Charles H.....1203 S. A St.
McIlroy, Richard J.....Richmond State Hospital
Mader, John H.....2000 E. Main St.
Miller, Harold L. .....1250 Chester Blvd.
Millis, Arthur B.....1250 Chester Blvd.
Park, Byron J.....1250 Chester Blvd.
Plasterer, Edward D.....212 S. 16th St.
Porter, George S.....920 Whitewater Blvd.
Ramsdell, Glen A.....1015 S. A Street
Runge, Paul W.....1426 E. Main St.
Sage, Charles V., Jr.....48 S. 11th St.
Schmitt, Robert W.....25 Circle Drive
Sherer, Kenneth E.....1250 Chester Blvd.
Shields, Tom S.....47 S. 11th St.
Short, John A.....409 S.W. I St.
Snyder, Morris C.....810 S. A St.
South, Herman H.....Richmond State Hospital
Spellmeyer, John C.....803 N. A St.
Stepleton, John D.....Reid Memorial Hospital
Stilwell, William R.....2607 South C Place
Sweet, Howard E.....35 E. Eighth St.
Warren, Robert J.....217 Medical Arts Bldg.
Warrick, Francis B.....1426 E. Main St.
Weitemier, Raymond A.....2000 E. Main St.
Wertenberger, Morris D.
779 Greenmount Pike, R. R. 2
Wiland, Olin K.....Reid Memorial Hospital
Wynegar, David E.....Richmond State Hospital
Zore, Joseph J.....1308 North A Street

Wambo, John M....101 Manchester, Orange, Calif. (92668)

Shepard, Fred F.....College Corner, Ohio (45003)

WELLS COUNTY

Bluffton

(*Zip Code* 46714)

Boonstra, Charles E.....303 S. Main St.
Bradley, Louis F.....303 S. Main St.
Buckner, Joy F.....116 E. Walnut St.
Caylor, Charles H.....303 S. Main St.
Caylor, Harold D.....303 S. Main St.
Caylor, Truman E.....303 S. Main St.
Collins, Jack T.....303 S. Main St.
Cook, Robert G.....303 S. Main St.
Dorrance, Thomas O.....303 S. Main St.
Eisaman, Jack L.....303 S. Main St.
Gitlin, Max M.....121 E. Market St.
Gitlin, William A.....121 E. Market St.
Hendeles, Frieda R.....303 S. Main St.
Huebner, Gilbert D.....303 S. Main St.
Huffman, Galen C.....303 S. Main St.
Jackson, Charles E.....303 S. Main St.
Jaurnig, Russell R.....303 S. Main St.
Johnson, Robert L.....811 S. Morgan St.
Kephart, S. Bruce.....303 S. Main St.
McCaslin, Charles W.....303 S. Main St.
Matzen, Richard N.....303 S. Main St.
Mayock, Peter P.....303 S. Main St.
Meier, Donald W.....303 S. Main St.
Mock, L. Farrell.....303 S. Main St.
Mudrony-Szoke, Jeno B.....303 S. Main St.
Panos, Constantine G.....227 S. Main St.
Phillips, John F.....303 S. Main St.
Pietz, David G.....303 S. Main St.
Rusher, Merrill W.....303 S. Main St.
Shaw, Glenn R.....303 S. Main St.
Sorg, David A.....303 S. Main St.
Steckbeck, Robert L.....303 S. Main St.
Strehler, Don A.....303 S. Main St.
Talbert, Pierre C.....303 S. Main St.
Willard, Richard.....1407 Fort Wayne Rd.
Yoder, Richard P.....303 S. Main St.

Stevens, Adam C.....Kendallville (46755)
Gingerick, Charles M.....Liberty Center (46766)
Kinzer, LeRoy D.....Markle (46770)
Miller, Gerald L.....Markle (46770)
Hardin, Wayne E.....Ossian (46777)

Pitts, Neal C.....Box 1766, 7th Field Hosp., APO San Francisco, Calif. (96594)
Rudy, Donald B.
P. O. Mnene, via Belingwe, Rhodesia, S. Africa
Schaefer, Joseph C.....V.A. Hospital, 510 E. Stoner Ave., Shreveport, La. (71101)

WHITE COUNTY

Galbreth, Jesse P. (S).....Burnettsville (47926)
McClure, Stanley E.....Monon (47959)

Monticello

(*Zip Code* 47960)

Dickerson, W. Martin.....1114 O'Connor Blvd.
Fields, Max L.....Western Heights
Hibner, Nolan A .....222 S. Main St.
Jehanyar, M. Ali.....116 N. Illinois St.
Morris, Warren V.....115 W. Marion St.

Baynes, Frank L.....Wolcott (47995)
Forbes, Violet Crabbe.....Wolcott (47995)

WHITLEY COUNTY

Hershey, Ernest A. (S).....Churubusco (46723)
Minick, Linus J.....Churubusco (46723)

Columbia City

(*Zip Code* 46725)

Hamilton, Thomas.....115 S. Main St.
Heritier, C. Jules.....116 S. Chauncey
Langohr, John L.....215 E. Van Buren St.
Lehmberg, Otto F. C.....118 E. Van Buren St.
Niccum, Warren L.....215 E. Van Buren St.
Reid, Donald B.....2 Hallmark Square
Roth, James R.....323 N. Chauncey
Thompson, Frank M.....510 N. Main St.
Vogel, John L.....215 E. Van Buren St.
Wait, Jerome H.....115 S. Main St.
Wilson, John.....122 N. Main St.

Stalter, Gaylord W.....North Webster (46555)
Mishler, Joe B.....P. O. Box 276, Pierceton (46562)
Yoder, Dewey D.....R. R. #1, Pierceton (46562)
Huffman, Verlin P.
201 N. State St., South Whitley (46787)

WOMAN'S AUXILIARY
to the
INDIANA STATE MEDICAL ASSOCIATION

OFFICERS: 1968-69

PRESIDENT	Mrs. S. Bruce Kephart	P.O. Box 12	Bluffton (46714)
PRESIDENT-ELECT	Mrs. Kenneth D. Schneider	4250 N. Riverside Dr.	Columbus (47201)
IMMEDIATE PAST-PRESIDENT	Mrs. John W. Deever	6801 S. East St.	Indianapolis (46227)
FIRST VICE-PRESIDENT	Mrs. Milton V. Caldwell	R. R. 7, Box 449	Terre Haute (47802)
NORTHERN VICE-PRESIDENT	Mrs. Philip L. Smith	5416 S. Wayne Ave.	Fort Wayne (46807)
CENTRAL VICE-PRESIDENT	Mrs. Willis W. Stogsdill	R. R. 4	Franklin (46131)
SOUTHERN VICE-PRESIDENT	Mrs. Abner P. Bennett	961 Blue Ridge Rd.	Evansville (47715)
RECORDING SECRETARY	Mrs. Stanley M. Chernish	4403 Radnor Rd.	Indianapolis (46226)
TREASURER	Mrs. Otis R. Bowen	304 N. Center St.	Bremen (46506)
CORRESPONDING SECRETARY	Mrs. Charles E. Boonstra	1110 Highland Park Circle	Bluffton (46714)
FINANCE SECRETARY	Mrs. H. Carter Dunstone	2525 Paulding Rd.	Fort Wayne (46806)
HISTORIAN	Mrs. John M. Sullivan	2242 College Ave.	Terre Haute (47803)
PARLIAMENTARIAN	Mrs. Frank Gastineau	2923 Lakeshore Dr., Apt. A	Indianapolis (46205)

COMMITTEE CHAIRMEN

AMA-ERF (CHAIRMAN)	Mrs. Edward M. Johnson	313 Terre Vista Dr.	Terre Haute (47803)
AMA-ERF (TREASURER)	Mrs. C. Herbert Spencer	2108 Paulding Rd.	Fort Wayne (46806)
BYLAWS	Mrs. Thomas W. Johnson	351 W. 63rd St.	Indianapolis (46260)
COMMUNITY SERVICE	Mrs. John M. Records	1138 Orchard Lane	Franklin (46131)
EDITORIAL	Mrs. Frank H. Green	516 N. Morgan St.	Rushville (46173)
HEALTH CAREERS	Mrs. William Garner, Jr.	1510 Sunset Dr.	New Albany (47150)
INTERNATIONAL HEALTH ACTIVITIES	Mrs. Francis Gootee	R. R. 1	Jasper (47546)
LEGISLATION	Mrs. Fred Dierdorf	103 S. 23rd St.	Terre Haute (47803)
MEDICAL CARE INSURANCE	Mrs. Halleck S. Knotts	2740 Washington St.	Columbus (47201)
MEMBERSHIP	Mrs. Milton V. Caldwell	R. R. 7, Box 449	Terre Haute (47802)
MENTAL HEALTH	Mrs. Richard G. Horswell	1623 E. Jackson Blvd.	Elkhart (46514)
ORGANIZATION	Mrs. Kenneth D. Schneider	4250 N. Riverside Dr.	Columbus (47201)
PROGRAM	Mrs. David Goldsmith	2711 River Rd.	Marion (46952)
PUBLICITY	Mrs. William J. Gerding	1741 Forest Park Blvd.	Fort Wayne (46806)
SAFETY-DISASTER PREPAREDNESS	Mrs. A. Alan Fischer	2515 Knollwood Dr.	Indianapolis (46208)
LIAISON OFFICER to the Indiana Chapter of W.A.S.A.M.A.	Mrs. Herbert L. Egbert	419 W. 63rd St.	Indianapolis (46260)
1968 ISMA CONVENTION CHAIRMEN	Mrs. Galen C. Huffman	Box 27, River Rd. East	Bluffton (46714)
	Mrs. William A. Kleifgen	4602 Tacoma Ave.	Fort Wayne (46807)
1969 CONVENTION CHAIRMEN, HOUSE OF DELEGATES	Mrs. H. Carter Dunstone	2525 Paulding Rd.	Fort Wayne (46806)
	Mrs. Jack T. Collins	R. R. 3	Bluffton (46714)

MEMBERSHIP ROSTER—BY COUNTIES

ADAMS COUNTY

Berne

(*Zip Code* 46711)

Beaver, Mrs. Norman E.....866 Columbia
Boze, Mrs. Robert L.....255 Dearborn St.
Dester, Mrs. H. E.....104 E. Water
Graber, Mrs. Martin.....265 W. Water

Decatur

(*Zip Code* 46733)

Burk, Mrs. James M.....221 S. 3rd St.
Carroll, Mrs. John C.....R. R. 5
Doan, Mrs. John.....522 Jefferson
Freeby, Mrs. C. William.....R. R. 1
Girod, Mrs. Arthur A.....R. R. 6
Parrish, Mrs. Richard K.....242 S. 2nd St.
Rich, Mrs. Norval S.....R. R. 4
Zwick, Mrs. Harold F.....104 E. Rugg

ALLEN COUNTY

Bluffton

(*Zip Code* 46714)

Brickley, Mrs. Harry D.....227 S. Main St.
Buckner, Mrs. Winifred.....P.O. Box 87
Hamilton, Mrs. O. G.....203 E. Central Dr.

Fort Wayne

(*Zip Code* 46805 *unless otherwise indicated.*)

A

Acker, Mrs. Herbert.....6314 Donna Dr. (09)
Adams, Mrs. E. Wade....1902 Forest Park Blvd.
Ahlbrand, Mrs. Roland C.....1242 Northlawn
Aiken, Mrs. Arthur F.....8331 Waterswolde Lane
Aiken, Mrs. Nevin E.....5540 Leo Rd.
Aldred, Mrs. Allen W.....3636 Rosewood Dr. (04)
Anderson, Mrs. Garland.....1241 Bethany Lane
Andrew, Mrs. Jerald.....401 W. Sherwood Terrace (07)

Arata, Mrs. James.....126 Timber Lane
Arata, Mrs. Justin E.....224 Ludwig Rd.
Ashman, Mrs. William C.....1018 Kinnaird (07)
Aust, Mrs. Charles H.
7137 Roseann Parkway (04)

B

Ball, Mrs. John R.....4112 S. Harrison (07)
Baltes, Mrs. Joseph H.....1309 Sunset Dr. (07)
Barch, Mrs. John W.....4921 Desoto Dr. (05)
Bash, Mrs. Wallace E.....1201 Korte Lane (07)
Beams, Mrs. Ralph.....3710 Wawonaissa (11)
Beierlein, Mrs. Karl M.....2716 Butler Road (08)
Beights, Mrs. Raymond.....4505 Fairlawn Pass
Bergendahl, Mrs. Emil.....1202 Illsley (07)
Beutler, Mrs. Theodore
3505 S. Washington Rd. (04)
Billingsley, Mrs. John.....4720 Crestwood (07)
Bixler, Mrs. J. A.....4310 Vance Ave.
Blichert, Mrs. Peter A.....449 W. Sherwood (07)
Bolman, Mrs. R. Morton....5405 S. Wayne (07)
Borders, Mrs. Theodore R.....1802 Nevada St.
Bossard, Mrs. John W.....1611 Alabama
Bower, Mrs. Richard E.
3609 Portage Blvd., Apt. #5 (04)
Bowers, Mrs. Geo. W.....7916 Covington (04)
Brandt, Mrs. William.....3535 Kirkland
Braunlin, Mrs. Robert J.....3423 Kirkland Lane
Bridges, Mrs. W. Lloyd.....207 Southridge Rd.
Bromley, Mrs. Luman W.
1225 W. Sherwood Ter. (07)
Brosius, Mrs. Robert H.....3302 Garland
Brown, Mrs. Frederic W.....1813 Woodmoor (04)
Brucker, Mrs. Perry A.....2933 Kingsley
Bruggeman, Mrs. H. O.
1202 W. Washington Blvd. (04)
Bryan, Mrs. Franklin A.....3006 Devon Dr.
Buckner, Mrs. Doster.....5810 Bass Rd. (08)
Buckner, Mrs. George D.....4327 Hampshire Dr.

C

Carlo, Mrs. Ernest.....5205 Indiana (07)
Cartwright, Mrs. Emor L.
3718 Hiawatha Blvd. (07)
Chambers, Mrs. Alan
1408 Three Rivers Apts. East (02)
Clark, Mrs. Wm. R.....4002 S. Harrison (07)
Cochran, Mrs. Harry A., Jr.
420 W. Sherwood Ter. (07)
Connelly, Mrs. Jerry.....4615 Willard Dr.
Connelly, Mrs. Richard D.....3016 Kingsley Dr.
Cooney, Mrs. Charles J.
2620 Covington Club Court (04)
Cottrell, Mrs. Robert F...5125 Worthman Ct. (07)

D

Datzman, Mrs. Richard....5402 Bluffton Rd. (07)
Dauscher, Mrs. Dean D.....445 French Ave. (07)
Davidoff, Mrs. Manuel A...5408 Bluffton Rd. (07)
Donesa, Mrs. Antonio B.....4023 Spanish Trail
Dunstone, Mrs. H. Carter
2525 Paulding Rd. (06)

E

Eberly, Mrs. Karl C.
2301 Fairfield Ave., Apt. 701 (07)
Emenhiser, Mrs. John L.....1407 Pinehurst Dr.

F

Ferguson, Mrs. Arthur N...328 W. Sherwood (07)
Fiacable, Mrs. Joseph P.
3910 Newport Ave., Apt. 10
Flaherty, Mrs. Robert....1835 Forest Park Blvd.
Foy, Mrs. Thomas.....2618 Glenwood Ave.
Frankhouser, Mrs. Chas. M.
7011 Winchester Rd. (07)
Fullam, Mrs. Richard.....4159 Woodstock

G

Gastineau, Mrs. David C.....8203 Westridge Rd.
Gerding, Mrs. William J...1721 Forest Park Blvd.
Giffin, Mrs. Charles....7939 Scottwood Court (04)
Glassley, Mrs. Stephen.....6950 Stellhorn Rd.
Glock, Mrs. Maurice E...1502 Hawthorne Rd. (04)
Glock, Mrs. Wayne R.....11505 State Road 427
Goebel, Mrs. Carl W.....4102 S. Harrison (07)
Graham, Mrs. George M...1126 W. Rudisill (07)
Graham, Mrs. James C.....2835 Devon Dr.
Greenlee, Mrs. Robert L.....3344 Sanibel Dr.
Greist, Mrs. Walter D.....4809 Arlington (07)
Griffith, Mrs. Harold R...1913 Forest Park Blvd.

H

Hackett, Mrs. Walter G..5220 Crandon Lane (04)
Haffner, Mrs. Herman G..3606 Mulberry Rd. (04)
Halaby, Mrs. Fouad.....9487 Crestridge (04)
Haley, Mrs. Alvin J.....3720 Stellhorn Rd.
Hall, Mrs. William R...1910 Hobson Road, Apt. 101
Haller, Mrs. Richard C.....2525 Otsego
Hamilton, Mrs. Emory D.....2405 Florida Dr.
Hamilton, Mrs. George.....4531 Highwood Dr.
Hasewinkle, Mrs. August M...3544 Kirkland Lane
Hastings, Mrs. Warren C.....1822 Kensington Rd.
Hattendorf, Mrs. A. Paul..4041 Old Mill Rd. (07)
Havens, Mrs. Russell E.....3721 Inwood
Hershberger, Mrs. Philip G.
5525 Covington Rd. (04)
Hickman, Mrs. Donald M.....3409 Delray
Hillery, Mrs. Robert.....3513 Kirkland Lane
Hipskind, Mrs. Richard E...1416 Woodmoor (04)
Hoffman, Mrs. Arthur F...3619 Harris Rd. (08)
Holsinger, Mrs. Robert E.
3466 S. Washington Rd. (04)
Hoover, Mrs. Joseph.....415 Blake Dr. (08)
Howe, Mrs. Fordyce L.....2540 Springfield
Hull, Mrs. DeWayne L.....3310 Maxim Dr.

I & J

Irmscher, Mrs. Geo. W.....2024 Florida Dr.
Isenogle, Mrs. Kenneth.....11118 Kings Crossing
Jackson, Mrs. John F.....4922 Indiana (07)
Johnston, Mrs. Richard.....2533 Bellevue Dr.
Jontz, Mrs. Joseph.....514 Shady Hurst Dr.
Jontz, Mrs. Richard L.....3705 Marigold Dr.
Juergens, Mrs. Richard.....8233 Parkridge

K

Karol, Mrs. Herbert J.....1725 Ardmore (04)
Kaufman, Mrs. Julian R...5405 Old Mill Rd. (07)
Kauffman, Mrs. Paul E.....1402 E. State St.
Keck, Mrs. Carleton A.....4633 Crestwood (07)
Kent, Mrs. Richard N.....2717 East Dr.
Keyes, Mrs. Robert C.....1226 Illsley (07)
Kilgore, Mrs. Byron.....3110 Glencairn Dr.
Kimbrough, Mrs. Robert..4745 Hartman Rd. (07)
Kleifgen, Mrs. Wm. A.....4602 Tacoma (07)
Kleopfer, Mrs. Ronald G.....6321 Sharon Dr.
Klooze, Mrs. Kenneth W.....723 W. Packard (07)
Knight, Mrs. Lewis W.....3502 Glencairn Dr.
Krueger, Mrs. John.....4418 Bradwood Terrace
Kruse, Mrs. Walter E.....4006 Spanish Trail

L

Ladig, Mrs. Donald S.....2720 Fairfield (07)
Laker, Mrs. Gene C.....4635 Old Mill Rd. (07)
Laker, Mrs. Richard J.....1301 Sheridan Ct. (07)
Lampe, Mrs. Elfred H...4255 Hartman Rd. (07)
Laycock, Mrs. Richard.....5019 Stellhorn Rd.
Lee, Mrs. John W.....3336 Rockwood Dr.
Lenk, Mrs. George G.....5507 E. State St.
Lloyd, Mrs. Robert P.
3838 W. Washington Rd. (04)
Logan, Mrs. Richard S.....5225 Vance
Lohman, Mrs. Robert M...1320 Westover Rd. (07)
Lorman, Mrs. James G.....4926 Midlothian
Loudermilk, Mrs. Jack L.....3032 Glencairn Dr.
Luckey, Mrs. James E.....3703 Bramble Crest Dr.

M

McCallister, Mrs. John W...4215 Drury Lane (07)

McCoy, Mrs. Roy R.....4101 S. Harrison (07)
McDowell, Mrs. George A...2322 Forest Park Blvd.
McEachern, Mrs. Cecil....4242 Old Mill Rd. (07)
McKeeman, Mrs Donald H.....1615 Ardmore (04)
Mann, Mrs. R. E.....1316 Old Lantern Trail
Manning, Mrs. George....4115 Indiana Ave. (07)
Marshall, Mrs. Caesar L.....1730 Laverne
Mastrangelo, Mrs. Michael J.
1914 Kensington Blvd.
Mercer, Mrs. Samuel R....3235 N. Washington Rd.
Meyer, Mrs. Theo. O.....3728 Kirkwood
Michaelis, Mrs. Stephen C...1255 Korte Lane (07)
Miller, Mrs. Carl G.....457 Oakdale Dr. (07)
Miller, Mrs. Don E.....3329 Argyle Dr. (06)
Miller, Mrs. H. Paul.....6408 S. Calhoun (07)
Miller, Mrs. Mahlon F.....1115 Illsley (07)
Miller, Mrs. Orval J.....1810 Kensington
Miller, Mrs. Richard.....5516 Indiana (07)
Miller, Mrs. Wm. J.....2620 Capitol (06)
Moats, Mrs. Carl F...3210 N. Washington Rd. (04)
Moeller, Mrs. Victor C.....4723 St. Joe Center Rd.
Morey, Mrs. Edwin.....709 Kinnaird (07)
Morgan, Mrs. Milton M.....8214 Park Ridge Dr.
Mortenson, Mrs. Leland J.
1310 W. Foster Pkwy. (07)
Mueller, Mrs. Lawrence W.
3423 S. Washington Rd. (04)

N-O

Nill, Mrs. John H.....5316 South Wayne (07)
Nolan, Mrs. Gerald R.
2631 Covington Club Ct. (04)
O'Brian, Mrs. John F.....1215 N. Anthony Blvd.
O'Rourke, Mrs. Carroll..9211 Covington Rd. (04)

P

Painter, Mrs. Donald S.....110 Southridge Rd.
Parker, Mrs. C. B.....2215 Paulding Rd. (06)
Parrot, Mrs. Donald J.....4926 Chaucer
Patterson, Mrs. Jack W.....8914 Maravilla Dr.
Perrin, Mrs. Kermit F.....2828 Lake Ave.
Pickett, Mrs. Merle E.....4509 Trierwood
Popp, Mrs. Milton F.....3148 Parnell Ave.
Powell, Mrs. M. Jack..7412 Ridge Knoll Rd. (04)
Priddy, Mrs. Marvin.....3902 Bonita Place

R

Rank, Mrs. William B.
3737 S. Washington Rd. (04)
Ransburg, Mrs. Robert C.....4123 Bello Dr.
Reed, Mrs. John D.....3940 Dalewood Dr.
Reszel, Mrs. Paul A.....4016 Hedwig Dr.
Richards, Mrs. Alan D.....3730 Meda Pass (07)
Richardson, Mrs. Joseph H.....8726 Fortuna Way
Rissing, Mrs. Walter J.....3200 Irvington
Roser, Mrs. Arthur J.....5576 Covington Rd. (04)
Rossiter, Mrs. Dudley L....724 Oakdale Dr. (04)
Rothberg, Mrs. Maurice..4319 Hartman Rd. (07)
Rousseau, Mrs. John W.....3018 Devon Dr.

S

Salon, Mrs. Harry W...4017 Hiawatha Blvd. (07)
Salon, Mrs. Joel.....4935 Old Mill Rd. (07)
Salon, Mrs. Nathan L.
3505 N. Washington Rd. (04)
Sarver, Mrs. Francis E.....4629 Tacoma (07)
Savage, Mrs. Arthur R.....208 Southridge Rd.
Scheeringa, Mrs. Ronald H.
2805 Greenbriar Dr. (04)
Schlademan, Mrs. Karl R...5231 Old Mill Rd. (07)
Schleinkofer, Mrs. Robert.....705 Caribe Blvd.
Schloss, Mrs. Robert
414 W. Sherwood Terrace (07)
Schmidt, Mrs. Eugene E.....1119 Maxine Dr. (07)
Schmoll, Mrs. Robert J.....5214 Woodhurst (07)
Schneider, Mrs. Louis A.
1351 W. Sherwood Tr. (07)
Schoen, Mrs. Frederic L.....5128 S. Wayne (07)
Schoenhals, Mrs. Charles E.....5431 Vance Ave.
Schubert, Mrs. Jerome C.
4725 Wellington Drive (06)
Scudder, Mrs. James.....1619 Forest Park Blvd.
Senseny, Mrs. Eugene F..3112 Beaver Ave. (07)
Shaw, Mrs. James E...3932 Rosewood Drive (04)
Shinabery, Mrs. Lawerence
2123 Three Rivers North (02)
Shugart, Mrs. Robert R.
4206 N. Washington Rd. (04)
Sidell, Mrs. James.....3912 Bonita Pl.
Sirlin, Mrs. E. M.....2615 Trier Rd.
Smith, Mrs. C. Curtis.....4332 Charter Lane
Smith, Mrs. Philip L.....5416 South Wayne (07)
Smith, Mrs. Roger C.....8828 Maravilla Dr.
Snyderman, Mrs. Sanford C.
3222 N. Wash. Rd. (04)
Somers, Mrs. G. H.
2445 S. Fairfield Ave., Apt.-108 (07)
Spencer, Mrs. C. Herbert
2106 Paulding Rd. (06)
Stanley, Mrs. Robert G.
2807 Club Terrace Rd. (04)
Stauffer, Mrs. Richard C.....3924 Spanish Trail
Steigmeyer, Mrs. David J.....6809 Woodcrest
Stier, Mrs. Paul..R. R. 6, 13120 Ravine Trail (04)
Stucky, Mrs. Jerry L.....4167 Woodstock Ave.
Sullivan, Mrs. Robert E.....4706 Highwood

T

Tennant, Mrs. David L.....3908 Spanish Trail
Terrill, Mrs. Richard.....4727 Old Mill Rd. (07)
Thornton, Mrs. W. E.....601 W. Oakdale (07)
Tomusk, Mrs. August N.....2315 Springfield
Trier, Mrs. Herbert P.....1618 Forest Park Blvd.

U-V

Ungemach, Mrs. Willo F.....3929 Wenonah (07)
Vogel, Mrs. Lloyd A.....5626 Dartmouth Dr.
Voorhees, Mrs. Robert J...2018 Forrest Valley Dr.

W

Wade, Mrs. Reynolds W., Jr...4105 Dalewood Dr.
Walker, Mrs. Floyd.....1202 Forest Ave.
Wallace, Mrs. Collins R.....2817 Westbrook Dr.
Weber, Mrs. John R.....5315 S. Wayne
Wick, Mrs. Alfred A.....2320 Springfield Ave.
Wilkins, Mrs. Robert W.....914 Prange Dr. (07)
Wilson, Mrs. Leslie.....4864 Reed Rd.
Wilson, Mrs. Roland B.....4100 Abbott (06)
Wright, Mrs. William C.....1834 Pemberton Dr.
Wyatt, Mrs. James L., Jr...2934 Grandview (04)

Z

Zweig, Mrs. Elmer S.....2015 Pemberton

New Haven
(*Zip Code* 46774)

Dahling, Mrs. C. Wallace..Carefree Farms, R. R. 2
Dahling, Mrs. Fred W.....1229 Rose Ave.
Hoetzer, Mrs. Eldore M.....5233 Doyle Rd.
Stumpf, Mrs. Edwin E.....1316 Werling Rd.

Emme, Mrs. Richard W...R. R. 2, Grabill (46741)
Mackel, Mrs. Frederick
R. R. 1, Huntertown (46748)
Harless, Mrs. O. Fred.....Monroeville (46773)
Walsh, Mrs. John H.....R.R. 2, Roanoke (46783)
Schlegel, Mrs. Edward
2009 Freize Ave., Ann Arbor, Mich. (48104)

BARTHOLOMEW-BROWN COUNTIES

Columbus
(*Zip Code* 47201)

Able, Mrs. Walter.....2630 19th St.
Adler, Mrs. David L.....4224 N. Riverside Dr.
Andrews, Mrs. Fred B.....4105-A Charleston Pl.
Beggs, Mrs. Lowell F.....2733 Riverside Dr.

Daugherty, Mrs. Forest D...R. R. 1, Indian Hills
Davis, Mrs. Marvin R.....2300 N. Washington St.
Dugan, Mrs. Thomas.....2651 18th St.
Echsner, Mrs. Herman J.....300 Tipton Lane
Fisher, Mrs. Walter S.....3450 Nugent Blvd.
Fortner, Mrs. Roy E.....3021 Tulip Drive
Fuller, Mrs. Robert.....R.R. 1, Taylor Rd.
Gammell, Mrs. Lindley L.....602 22nd St.
Grangier, Mrs. Bernard A.....1431 Hunter Pl.
Hart, Mrs. Robert B.....1203 16th St.
Hauersperger, Mrs. Alfred D.....4164 River Rd.
Hawes, Mrs. Marvin E.....2975 Franklin Dr
Henry, Mrs. Alvin L.....1926 Lafayette Avenue
Holden, Mrs. Robert.....3631 Arlington Dr.
Jacobs, Mrs. E. Robert.....1829 California
Knotts, Mrs. Halleck S.....2740 Washington St.
Krueger, Mrs. Robert B.....811 27th St.
Libbert, Mrs. Edwin L.....3377 Woodland Pl.
Macy, Mrs. George W.....2858 Village Dr.
Marr, Mrs. Griffith.....Marr Rd., R. R. 1
McCullough, Mrs. Henry G.
Old Indianapolis Rd., R. R. 4
Mohler, Mrs. Floyd W.....308 Sunset Dr.
Norton, Mrs. Harold J.....909 Pearl St.
O'Bryan, Mrs. Richard B...3306 Grove Parkway
Overshiner, Mrs. Lyman.....1715 Franklin St.
Ranck, Mrs. Benjamin A.....3370 Grove Parkway
Rau, Mrs. Charles A.....1312 Audubon Dr.
Reid, Mrs. Robert M.....2712 Lafayette Ave.
Richmond, Mrs. Harold W.....1725 Washington
Ryan, Mrs. C. David.....4025 N. Riverside Dr.
Ryan, Mrs. Wm. J.....3224 Grove Parkway
Sandlin, Mrs. Donald L.....R. R. 7
Schmitt, Mrs. Richard K.....2639 Riverside Dr.
Schneider, Mrs. Kenneth D...4250 N. Riverside Dr.
Sigmund, Mrs. Wm. B.....P.O. Box 306
Snapp, Mrs. Richard A.....2644 Chestnut St.
Stribling, Mrs. James L.....4232 N. Riverside Dr.
Weinland, Mrs. George C.....R. R. 5
Weisenberger, Mrs. Brockton..3305 Wooland Pkwy.
Wickstrom, Mrs. Otto W.....203 Newsom
Wickstrom, Mrs. Otto W., Jr.....3412 Grove Place
Wigh, Mrs. Russell.....2767 Lafayette Ave.
Williams, Mrs. E. W.....1902 Franklin St.
Zaring, Mrs. Byron K.....2419 Riverside Dr.

Seibel, Mrs. Robert M.....Nashville (47448)
Stevens, Mrs. Kuhrman H.
Morrison Rd., R.R. 3, Nashville (47448)
Thurston, Mrs. Lloyd.....Nashville (47448)

BOONE COUNTY

Lebanon

(*Zip Code* 46052)

Bennett, Mrs. Kent.....2201 Terrace Lane
Boyer, Mrs. Don.....129 W. Camp
Coons, Mrs. John D.....121 Ulen Blvd.
Coons, Mrs. Ritchie.....138 Ulen Blvd.
Honan, Mrs. Paul.....202 East Dr.
Kern, Mrs. Clarence G.....1019 N. Meridian
Lenox, Mrs. Jack.....203 East Dr.
McAfee, Mrs. James.....1997 Terrace Lane
Mukhtar, Mrs. Fuad.....126 Ulen Blvd.
Perkins, Mrs. Thornton.....105 Winding Way
Weddle, Mrs. Charles O.....1210 N. East
Wiseheart, Mrs. Robert H.....123 Ulen Blvd.

Schaaf, Mrs. Alvin D.....Jamestown (46147)
Gregg, Mrs. Edwin.....110 W. Main, Thorntown (46071)

CARROLL COUNTY

Delphi

(*Zip Code* 46923)

Baker, Mrs. Eldon E.....R. R. 4, Box 144
Petry, Mrs. T. Neal.....130 W. Summit St.
Seese, Mrs. Robert M.....201 W. North St.
Wagoner, Mrs. Geo. W.....305 W. Summit St.

Wise, Mrs. Charles L.....Shangrala, Camden (46917)

CASS COUNTY

Logansport

(*Zip Code* 46947)

Adamski, Mrs. M. S.....614 17th St.
Bailey, Mrs. Earl W.....2522 North
Bean, Mrs. Joseph S.....R. R. 1, Box 167
Burnett, Mrs. Paul C.....2606 High St. Rd.
Eckert, Mrs. Russell A.....15 Frederick St.
Gatzimos, Mrs. Christos D.....3116 High St. Rd.
Glendening, Mrs. Richard L.....2300 Broadway
Hall, Mrs. Bernard R.....3400 E. Broadway
Hedde, Mrs. Eugene L.....2304 Chase Rd.
Hillis, Mrs. L. J.....2410 Hastye Hyll
Horning, Mrs. Richard R.
Logansport State Hospital
Jones, Mrs. J. Carl.....R. R. 3
King, Mrs. Jay M.....2319 Mayfair Dr.
Maschmeyer, Mrs. R. H.
Logansport State Hospital
Morrical, Mrs. Russell J.....415 Highland
Pfuetze, Mrs. Max E.....1511 North St.
TerBush, Mrs. Edward L.....R.R. 5, Box 365-A
Viney, Mrs. Charles L.....26th and High St.
Wilson, Mrs. Paul H.....2600 Hastye Hyll
Winter, Mrs. Donald K.....2409 Hastye Hyll

Dutchess, Mrs. Charles T.....Galveston (46932)

CLARK COUNTY

Charlestown

(*Zip Code* 47111)

Goodman, Mrs. Eli.....333 Oriole Dr.
Jones, Mrs. David.....State Rd. 39
Voskuhl, Mrs. William L.....934 Monroe St.

Clarksville

(*Zip Code* 47131)

Mudd, Mrs. Joseph.....103 Rosewood Dr.
Shaw, Mrs. Houston M.....209 Maplewood Dr.
Willner, Mrs. Alan.....214 Rosewood Dr.
Wolverton, Mrs. George.....115 Rosewood Dr.

Jeffersonville

(*Zip Code* 47130)

Buckley, Mrs. Ernest.....729 E. Park
Carney, Mrs. J. T.....2602 Hollywood Dr.
Clark, Mrs. William B.....Blackiston Mill Road
Dare, Mrs. Lee.....215 Sparks Ave.
Golden, Mrs. Wm. Y.....1929 Utica Pike
Havens, Mrs. Alfred Lyle.....1934 Utica Pike
Horlander, Mrs. Fridolin.....Gateway Plaza
Huoni, Mrs. John.....1407 Youngstown Dr.
Isler, Mrs. Nathaniel C.....901 Morningside Dr.
McKechnie, Mrs. Robert K.
1554 Blackiston Mill Rd.
Oca, Mrs. Clemente F. .....Utica Pike
Reed, Mrs. Edsel.....4 Pawnee Dr.
Roby, Mrs. A. L.....Rt. 9, Box 91, Utica Pike

Sellersburg

(*Zip Code* 47172)

Meyer, Mrs. Claude J.....225 W. Utica St.
Regan, Mrs. George.....303 Indiana
Sturgis, Mrs. Donald G.....542 Linnwood
Vandevert, Mrs. Arthur.....202 Highland

Carr, Mrs. Joseph..Pine Rd., Henryville (47126)
Greene, Mrs. W. R.....Henryville (47126)

DEARBORN COUNTY

Aurora

(*Zip Code* 47001)

Baker, Mrs. Leslie M.....204 Fifth St.
Frable, Mrs. Frank.....412 Sunnyside Ave.
Jackson, Mrs. Kenneth.....205 Grant St.
Olcott, Mrs. Charles W.....305 Sunnyside

McNeely, Mrs. Matthew J.....Dillsboro (47018)
Fessler, Mrs. Gordon.....Rising Sun (47040)
Mauricio, Mrs. Amado.....Rising Sun (47040)

Lawrenceburg

(*Zip Code* 47025)

Bonner, Mrs. Hugh J.....238 Short St.
Bowen, Mrs. Gerald.....808 Tanner Ave.
Conrad, Mrs. Henry.....370 Bielby Rd.
Houston, Mrs. Fred D.....533 Ludlow St.
Hunter, Mrs. Lowell.....2 Clinic Dr.
Morrison, Mrs. George.....35 DeJerns Lane
Pfeifer, Mrs. James M.....550 Ludlow
Rhodes, Mrs. A. Keith.....Loretta Ave.
Streck, Mrs. Francis A.....547 Ridge Ave.

DECATUR COUNTY

Greensburg

(*Zip Code* 47240)

Acher, Mrs. Robert P.....446 E. Washington
Callaghan, Mrs. W. C.....403 Barachel Lane
Dickson, Mrs. Dale D.....700 N. East St.
Domingo, Mrs. Ricardo C.....R.R. 3, Hillcrest
Ducanes, Mrs. Arnold D.....R.R. 3, Hillcrest
Miller, Mrs. James C.....178 N. Michigan Ave.
Morrison, Mrs. J. Trevor....161 N. Michigan Ave.
Shaffer, Mrs. William R.....214 N. Franklin

DELAWARE-BLACKFORD COUNTIES

Hurley, Mrs. John
P.O. Box 545, Daleville (47334)
Puterbaugh, Mrs. Karl.....Albany (47320)
Montgomery, Mrs. Lall G.
Box 149A, RFD 1, Gaston (47342)
Egger, Mrs. Ross
R.R. 1, Box 182, Middletown (47356)
Owsley, Mrs. Guy...214 N. High St., Hartford City (47348)

Muncie

(*Zip Code* 47304 *unless otherwise indicated*)

A

Adams, Mrs. William B.....4608 W. Jackson St.
Alexander, Mrs. Jack.....2110 Lincolnshire
Anthony, Mrs. Harvey M.....822 W. Charles (05)
Ashburn, Mrs. Clarence.....2202 W. Purdue Rd.

B

Ball, Mrs. Clay A.....720 W. Centennial Ave.
Ball, Mrs. Philip.....2820 W. Main St.
Benken, Mrs. Lawrence.....1511 Riley Rd.
Bergwall, Mrs. Warren.....20 Burnell Dr.
Bibler, Mrs. Henry.....2625 S. Parkway Dr.
Botkin, Mrs. Clyde G.....2904 Riverside Ave.
Botkin, Mrs. Thomas
R.R. 7, Brevington Woods (02)
Branam, Mrs. George.....38 Warwick Rd.
Brown, Mrs. Leland.....605 Waid Ave.
Brown, Mrs. Stewart D.....19 Hickory Rd. (03)
Brown, Mrs. Thomas.....R. R. 6, Box 191 (02)
Burwell, Mrs. Stanley W.....3124 W. Gilbert
Butterfield, Mrs. R. M.....222 Winthrop Rd.
Butz, Mrs. Ralph O.....3824 Riverside Ave.

C

Clark, Mrs. Robert.....3124 University Ave.
Covalt, Mrs. Wendell E.....304 Alden
Cullison, Mrs. John.....2601 Parkway Dr.

D

David, Mrs. George
R. R. 3, 22 Oaklawn Dr. (02)
Deutsch, Mrs. William.....3305 Riverside Ave.
Dietz, Mrs. David J.....3009 Riverside
Dunning, Mrs. Thomas.....3301 N. Tillotson Ave.
Dutchman, Mrs. William R.....1003 N. Shellbark

E-F

Fiederlein, Mrs. Frederick.....308 Wildwood

G

Geckler, Mrs. Charles E...1007 W. North St. (03)
Gibson, Mrs. Robert.....2306 Timber Lane
Gill, Mrs. Thomas A., Jr.....45 Warwick Rd.
Goodell, Mrs. Charles.....3007 Gishler Dr.
Greiber, Mrs. Marvin.....310 Riley Rd.
Gustafson, Mrs. Milton H.....230 Stradling Rd.

H-I

Hall, Mrs. Robert S.....701 Brentwood
Hayes, Mrs. T. R.....19 Warwick Rd.
Henderson, Mrs. Ramon.....52 Warwick Rd.
High, Mrs. Ralph.....2825 University Ave.
Holmes, Mrs. John.....908 W. Gilbert (05)
Hostetter, Mrs. I. S.....300 Winthrop Rd.
Imhof, Mrs. J. D.....46 Warwick Rd.

K

Kalker, Mrs. Morton.....704 Greenbriar Rd.
Kammer, Mrs. Walter F.....1005 W. Parkway Dr.
Ko, Mrs. Richard.....R. R. 7, Box 366 (02)
Koch, Mrs. Edwin F., Jr.....915 University Ave.
Koss, Mrs. K. William.....707 Greenbriar

L

Lawson, Mrs. Lawrence.....1504 Riley Rd.

M-N

Mathewson, Mrs. R. C.
R. R. 9, Box 157, Benton Rd.
McCallister, Mrs. Larry.....25 Warwick Rd.
McClintock, Mrs. James A...3121 University Ave.
Montgomery, Mrs. Ralph.....303 Wildwood Lane
Moore, Mrs. Jack.....2306 Park Lane
Morris, Mrs. J. W.....222 Stradling Rd.
Moss, Mrs. M. J.....1010 W. Parkway Dr.
Nelson, Mrs. Harold E.....3216 Torquay Rd.
Newnam, Mrs. Philip.....2500 Brooks Dr.

O

Osborne, Mrs. John.....3119 Petty Road
Owens, Mrs. Thomas.....608 E. Charles (05)

P-Q

Peacock, Mrs. Robert.....R. R. 3 (02)
Philbert, Mrs. Richard N.....2106 Berkshire
Pippinger, Mrs. Joseph
2200 Twickingham Dr. (02)
Pippinger, Mrs. W. G.....1200 N. Tillotson
Quick, Mrs. William J.....Moore Rd., R. R. 7 (05)

R

Rittmeyer, Mrs. Jack.....21 Berwyn Rd. (04)
Rivers, Mrs. Glynn.....307 Alden Rd.
Roch, Mrs. Marshall.....312 Shady Lane

S

Schulhof, Mrs. M. G.....1914 Woodmont (04)
Searight, Mrs. Howard
R. R. 2, Box 66, Burlington Drive (02)
Speck, Mrs. Carlson.....3208 University
Stanley, Mrs. John R.....2303 Redding (02)
Stibbins, Mrs. Warren E.....609 Brentwood
Stout, Mrs. Francis E.....102 Berwyn Rd. (04)
Stump, Mrs. Richard....1419 Granville Ave. (03)

T

Taylor, Mrs. Donald.....8 Wildwood Lane
Tharp, Mrs. Donald.....3121 Petty Rd.
Tomlin, Mrs. Hugh M.....2920 Beechwood Ave.

V-W

Voss, Mrs. Gert.....77 Warwick Rd.
Ware, Mrs. Herbert.....1700 Glen Ellyn
Weisner, Mrs. Richard
R. R. 3, Box 347, Oaklawn (02)
Wince, Mrs. Leland.....3600 Brook Dr.
Wiza, Mrs. Edward.....105 Shellbark Rd.

Y

Young, Mrs. G. S.....114 Berwyn Rd.

Cooper, Mrs. John H.....R. R. 1, Eaton (47338)
Hinchman, Mrs. Jean.....Parker (47368)
Hill, Mrs. Robert.....Yorktown (47396)
Walker, Mrs. Jack.....R. R. 1, Box 163A, Yorktown (47396)

DUBOIS COUNTY

Barrow, Mrs. John H..Dale, P. O. Box 128 (47523)
Backer, Mrs. Henry George
Main St., Ferdinand (47532)
Bland, Mrs. Jack D.
311 Rye Rd. Mundelein, Ill. (60060)
Erhart, Mrs. Herbert G.....Ferdinand (47532)

Huntingburg

(*Zip Code* 47542)

Bretz, Mrs. John.....Orchard Ridge
Craig, Mrs. Harry.....R. R. 1
Scales, Mrs. Alfred B.....Holland Rd.
Scales, Mrs. Allen D.....Cedar Heights
Stork, Mrs. Harvey K.....523 First St.

Jasper

(*Zip Code* 47546)

Beaven, Mrs. John.....910 W. 13th St.
Benages, Mrs. Anthony.....948 MacArthur
Gootee, Mrs. Francis.....R. R. 1
Gootee, Mrs. Thomas.....1328 Dorbett St.
Heck, Mrs. Martin C.....408 W. 15th
Held, Mrs. George A.....716 W. Ninth
Klamer, Mrs. Charles H.....616 W. 13th St.
Ploetner, Mrs. Edward.....1344 Dorbett St.
Salb, Mrs. J. P.....R. R. 5, Box 3A
Wagner, Mrs. Arthur L.....825 W. 13th St.

ELKHART COUNTY

Bristol

(*Zip Code* 46507)

Neidballa, Mrs. E. G.....West Vistula St.
Schlosser, Mrs. H. C.
Seven Gables, W. Vistula St., Box 57

Elkhart

(*Zip Code* 46514)

Atwood, Mrs. Wm. H., Jr.....520 Cedar St.
Bender, Mrs. Robert L.....300 Robair Lane
Billings, Mrs. Elmer R.....2022 E. Jackson Blvd.
Bloom, Mrs. George R.....1100 E. Jackson Blvd.
Boling, Mrs. Richard C.....217 Riverdale Dr.
Bowdoin, Mrs. George E.....2725 Vernon Ave.
Campbell, Mrs. Patrick B.....1517 Meadow Lane
Cassim, Mrs. Rechad M.....534 Southwest Blvd.
Classen, Mrs. Pete R. C.....Prairie St. Rd., R. R. 4
Compton, Mrs. Walter A.....2225 Greenleaf Blvd.
Cormican, Mrs. Herbert L.
1950 Rainbow Bend Blvd.
Dovey, Mrs. Edward G., Jr...1604 Springbrook Dr.
Durham, Mrs. Thomas E.....135 S. Vine St.
Echeverria, Mrs. Rodolfo E.....707 Hiawatha Dr.
Elliott, Mrs. Thomas A.....5 Kim Court
Finfrock, Mrs. James D.....608 S. West Blvd.
Fleming, Mrs. Claude F.....229 W. Jackson Blvd.
Futterknecht, Mrs. James O...2313 Morehouse Ave.
Gattman, Mrs. G. Beach.....1319 Lawn Ave.
Hannah, Mrs. Jack W.....1906 E. Jackson Blvd.
Heiser, Mrs. Ervin.....520 South West Blvd.
Horswell, Mrs. R. G.....1629 E. Jackson Blvd.
Hull, Mrs. Arthur W.....3333 Greenleaf Blvd.
Hurley, Mrs. James William.....3439 Calumet
Jones, Mrs. Robert B., Jr.
1839 Rainbow Bend Blvd.
Kesim, Mrs. Mufit Husam
1608 Springbrook Drive
Kinter, Mrs. Burton E.....3520 E. Jackson Blvd.
Kistner, Mrs. Arthur W.....R. R. 3, Box 81
Klassen, Mrs. Otto Dyck.....R. R. 4, Box 504
Koehler, Mrs. Elmer George..615 N. Riverside Dr.
Krause, Mrs. Frederick.....9 Rio Lindo Dr.
Lundt, Mrs. Milo O.....519 S. Second St.
Luther, Mrs. William C.....1422 Kilbourn St.
McArt, Mrs. Bruce A.....400 South West Blvd.
Mark, Mrs. George A.....3139 Frailey Dr.
Markel, Mrs. Ivan J.....215 W. Franklin St.
Martin, Mrs. Paul H.....1519 Strong Ave.
Miller, Mrs. Donald G.....1520 E. Mishawaka Rd.
Miller, Mrs. Galen R.....2229 Thorndale Ct.
Miller, Mrs. Hugh A., Jr.....417 Prospect St.
Miller, Mrs. Samuel T.....174 Witmer Ave.
Mininger, Mrs. Edward P...1118 E. Jackson Blvd.
Mishkin, Mrs. Irving...1809 Rainbow Bend Blvd.
Paff, Mrs. Wm. A.....1745 Rainbow Bend Blvd.
Paine, Mrs. George E.....329 Meisner Ave.
Pancost, Mrs. Vernon K.....160 Riverview Ave.
Parshall, Mrs. Dale B.....3538 Gordon Rd.
Pletcher, Mrs. William D.....405 S. 2nd St.
Rouen, Mrs. Robert L.....2002 E. Jackson Blvd.
Rupe, Mrs. Lloyd O.....R. R. 4, Oakland Ave. Rd.
Rupel, Mrs. Dennis F.....130 W. Beardsley Ave.
Scheer, Mrs. Alexander L.....12 Holly Dr.
Spray, Mrs. Page E.....658 Kilbourn St.
Stubbins, Mrs. William..1703 Rainbow Bend Blvd.
Swihart, Mrs. Danny D.....1219 Greenleaf Blvd.
Swihart, Mrs. Homer R.....1621 E. Jackson Blvd.
Whitlock, Mrs. Coleman M., Jr.
1509 Riverview Dr., R. R. 5
Wilson, Mrs. Orley E.....2505 Greenleaf Blvd.
Work, Mrs. James A., Jr.....22 St. Joseph Manor
Yoder, Mrs. C. Richard.....409 Prospect St.
Zeitler, Mrs. Philip S.....1509 Meadow Lane

Goshen

(*Zip Code* 46526)

Bigler, Mrs. Frederick W.....124 Parmley Dr.
Bowser, Mrs. Philip G.....707 S. 7th St.
Chandler, Mrs. Leon H.....412 S. Fifth St.
Freeman, Mrs. Floyd M.....309 E. Washington St.
Gorham, Mrs. Charles E.....118 Gorham
Graber, Mrs. Virgil R.....R. R. 2, Box 107
Haney, Mrs. Leslie.....R. R. 3
Harris, Mrs. Neil Revere.....628 S. 5th St.
Kennedy, Mrs. Myron S.....R. R. 5, Box 22B
Krabill, Mrs. Willard S.....120 Carter Rd.
Martin, Mrs. Floyd S.....2301 S. Main St.
Massanari, Mrs. Walter S.....211 Egbert Rd.
Minter, Mrs. Donald L.....2604 Woodlawn
Price, Mrs. Robert W.....214 South 6th
Smucker, Mrs. Ernest E.....R. R. 5, Bluff Rd.
Troyer, Mrs. Dana O.....1727 S. 13th St.
Troyer, Mrs. George W.....110 Woodlawn Dr.
Turner, Mrs. John P.....507 Greene Road
Wagner, Mrs. David G.....R. R. 5
Westfall, Mrs. George S.....307 W. Kercher Rd.

Nappanee
(*Zip Code* 46550)

Graber, Mrs. Alvin Ray.....952 E. John St.
Kendall, Mrs. F. M.....654 Woodland
Price, Mrs. Douglas W.....607 E. Van Buren

Fosbrink, Mrs. E. L.....218 S. Huntington, Box 157, Syracuse (46567)
Quilty, Mrs. Thomas J..R. R. 1, New Paris (46553)
Yoder, Mrs. Carl J.
103 Brown St., Middlebury (46540)

Wakarusa
(*Zip Code* 46573)

Abel, Mrs. Robert.....105 E. Harrison
Guttman, Mrs. John B. .....109 Broadview Dr.
Miller, Mrs. James R.....P. O. Box 421

FAYETTE-FRANKLIN COUNTIES

Brookville
(*Zip Code* 47012)

Seal, Mrs. Perry F.....901 Main
Smith, Mrs. H. N.....812 Main

Connersville
(*Zip Code* 47331)

Clark, Mrs. Helen Nevin.....401 Western Ave.
Ellis, Mrs. George M.....108 East 10th St.
Gregg, Mrs. Albert F.....900 Oak St.
Hudson, Mrs. Arlington M.....R. R. 3, Robin Hill
Janes, Mrs. R. G.....8 Dorsett Dr., R. R. 2
Kauffman, Mrs. Robert W.....R. F. D. 2
Kerrigan, Mrs. William F. .....R. F. D. 6
Lockhart, Mrs. Jack M.....54 West Dr.
Mountain, Mrs. Francis B.....74 Center Dr.
Neukamp, Mrs. Frank H.....R. R. 6
Sanders, Mrs. Bertram W.....1533 Virginia Ave.
Steinem, Mrs. Joseph L.....R. R. 3
Watterson, Mrs. Gerald T.....1704 Virginia Ave.

FLOYD COUNTY

Jeffersonville
(*Zip Code* 47130)

Baxter, Mrs. S. M.....3100 Centralia Ct.
Gentile, Mrs. John P.....3405 Centralia Ct.
Sloan, Mrs. Herbert.....213 Lynnwood Dr.

New Albany
(*Zip Code* 47150)

Baxter, Mrs. J. W., Jr.....426 Woodrow Ave.
Best, Mrs. Maurice M.....1233 Vance Ave.
Bickers, Mrs. Everett E.....3325 Buffalo Trails
Brown, Mrs. K. H.....1654 Hedden Park
Buchman, Mrs. Marshall.....1824 State St.
Cannon, Mrs. Daniel H.....1203 E. Spring St.
Cook, Mrs. Melvin.....2505 Glenwood Park
Edwards, Mrs. W. F.....615 Beharrel Ave.
Garner, Mrs. Wm. H., Sr.....922 E. Spring St.
Garner, Mrs. William H., Jr.....1510 Sunset Dr.
Hess, Mrs. P. Patrick.....1313 Ridgeway Ave.
Johnson, Mrs. William V.....2715 Kaywood Dr.
LaFollette, Mrs. Donald R.
Box 494-1, R. R. 2, Quarry Road
LaFollette, Mrs. Robert E.....2515 Glenwood Ct.
Nedelkoff, Mrs. Bogdan.....R. R. 2, Box 500
Paris, Mrs. John M.....2003 Lindbergh Ct.
Pierce, Mrs. Gene S.....1425 Bellmeade Dr.
Robertson, Mrs. A. N.....323 E. Ninth St.
Ruoff, Mrs. William.....1109 Lafayette Dr.
Sonne, Mrs. Irvin H.....1546 Sunset Dr.
Streepey, Mrs. Jefferson I.....1919 DePauw Ave.
Voyles, Mrs. Harry.....425 Beharrel Ave.
Wallace, Mrs. Elmer L.....1804 DePauw Ave.
Wolfe, Mrs. Morton F.....2533 Glenwood Ct.
Wolfe, Mrs. Nelson A.....2007 Graybrook Lane
Worley, Mrs. H. L.....1923 DePauw Ave.

Higgins, Mrs. John R.
R. R. 2, Box 405-C, Floyds Knobs (47119)
McCullough, Mrs. James
Box 447, Skyline Drive, Floyds Knobs (47119)
Receveur, Mrs. Robert E.
R.R. 1, Box 50-A, Floyds Knobs (47119)

FULTON COUNTY

Miller, Mrs. Virgil C.....P. O. Box 37, Akron (46910)
Stinson, Mrs. Arthur E.....Athens (46912)
Kraning, Mrs. Kenneth K.
834 West Shore Dr., Culver (46511)

Rochester
(*Zip Code* 46975)

Dielman, Mrs. Franklin C.....920 Jefferson St.
Herendeen, Mrs. Elbie V.....317 W. Seventh St.
Knochel, Mrs. Wayne.....1115 Washington St.
Richardson, Mrs. Chas. L.....R. R. 2, Box 276
Richardson, Mrs. Joseph D.....R. R. 2, Box 260
Rowe, Mrs. Howard H.....417 W. Ninth St.
Rusler, Mrs. William J.....R. R. 2
Stinson, Mrs. Dean K.....1318 Main St.
Stone, Mrs. Grant.....1100 Washington
Walton, Mrs. F. Richard.....R. R. 2

GIBSON COUNTY

Geick, Mrs. Raymond G...207 N. Main, Ft. Branch (47533)
Marchand, Mrs. Edwin V.....Haubstadt (47539)
Noveroske, Mrs. Richard
3901 Lincoln Ave., Evansville (47715)

Oakland City
(*Zip Code* 47560)

Dye, Mrs. William E.....518 S. Jackson St.

Princeton
(*Zip Code* 47570)

Carpentier, Mrs. Harry F.....319 E. State St.
Folck, Mrs. John K.....528 N. Main St.
Graves, Mrs. Orville M.....125 W. Walnut St.
McCarty, Mrs. Virgil.....403 W. Spruce St.
McElroy, Mrs. Robert S.....404 W. Walnut St.
Peck, Mrs. James F.....605 W. Monroe St.
Weitzel, Mrs. Roland E.....309 W. Spruce St.
Wells, Mrs. William R.....Broadview Addition

GRANT COUNTY

Marion
(*Zip Code* 46952)

Abell, Mrs. Charles F.....915 Wabash Ave.
Adams, Mrs. Luther
V.A. Hospital, Staff Quarters 38
Alderfer, Mrs. Henry.....919 Euclid Ave.
Ansbacher, Mrs. Stefan.....1115 Overlook Rd.
Ayres, Mrs. W. W.....820 Jeffras Ave.
Bailey, Mrs. Douglas.....1316 Elm Lane
Beck, Mrs. Thomas.....R. R. 4, Box 90
Bennett, Mrs. Ed. R.....V. A. Hospital
Bloom, Mrs. A. Ward.....610 River Rd.
Braunlin, Mrs. Robert.....P.O. Box 467
Brown, Mrs. Robert M.....825 Euclid Ave.
Cunningham, Mrs. Robert.....1017 Euclid Ave.
Davis, Mrs. Joseph B.....1315 Sheridan Rd.
Davis, Mrs. Merrill S.....723 Euclid Ave.
Donaldson, Mrs. Miles.....512 Spencer Ave.
Fisher, Mrs. Henry.....R. R. 4
Fisher, Mrs. Pierre J., Jr.....R. R. 1
Fuelling, Mrs. James.....R. R. 2, Box 199
Fleetwood, Mrs. Raymond A....29A-V.A. Hospital
Ganz, Mrs. Max.....904 Jeffras Ave.

Goldsmith, Mrs. David.....2711 River Rd.
Grant, Mrs. Arthur M.....3602 Wildwood Dr.
Hummel, Mrs. R. M.....2411 Lommel Lane
Jarrett, Mrs. John C.....3418 Wildwood Dr.
Kershner, Mrs. Charles R...1110 N. Western Ave.
Khalouf, Mrs. Herbert C.....2036 Kem Rd.
Lahr, Mrs. Richard.....815 Jeffras Ave.
Larzelere, Mrs. Henry.....Bocock Rd., R. R. 2
Lavengood, Mrs. Russell W.....Charles Rd. R. R.
Long, Mrs. Max R.....910 Spencer Ave.
Lonngren, Mrs. Dudley.....611 Cardinal Lane
Love, Mrs. V. Logan.....808 Crossway
Miller, Mrs. H. Allison.....1010 W. Fourth St.
Musselman, Mrs. L. K.....R. R. 5, Box 239
Pattison, Mrs. John D.....1315 Elm Lane
Pearcy, Mrs. Marcene.....712 Buckingham Dr.
Powell, Mrs. J. P.....127 River Dr.
Reid, Mrs. James D.....505 Buckingham Dr.
Renbarger, Mrs. Lester.....2111 Wabash Pike
Rhamy, Mrs. Arthur.....1230 Euclid Ave.
Rhamy, Mrs. Donald E.....428 N. Wabash Ave.
Rhorer, Mrs. John G.....711 Wabash Ave.
Shuck, Mrs. William A., Jr.....1225 Jeffras Ave.
Simmons, Mrs. Frederick H.....2607 Beech Lane
Skomp, Mrs. Claud E.....1123 Euclid Ave.
Smith, Mrs. Barton T.....515 Val Lane
Smith, Mrs. Eurett E.....R. R. 1, 511 Peconga
Snowhite, Mrs. Arthur B.....610 Cardinal Lane
Thompson, Mrs. B. Jay.....123 River Dr.
Thompson, Mrs. Samuel R.....804 W. Nelson St.
Walton, Mrs. R. Lee.....607 Cardinal Lane
Warren, Mrs. Carroll B.....1211 Euclid Ave.
Watkins, Mrs. James K.....620 W. 6th St.
Weinberg, Mrs. Samuel.....905 Euclid Ave.
Wilson, Mrs. Ned A.....1016 Euclid Ave.
Woodbury, Mrs. John W.....709 W. 4th
Young, Mrs. Robert G.....1207 Northwood Dr.

Malott, Mrs. Fred.....Converse (46919)
Yale, Mrs. Charles.....Fairmount (46928)
Garrison, Mrs. L. J.....515 E. Main St., Gas City (46933)
Koontz, Mrs. William A.....334 E. Main, Gas City (46933)
Shoemaker, Mrs. Richard L.....211 E. South "A," Gas City (46933)
Baskett, Mrs. R. J.....412 S. Main St., Jonesboro (46938)
Taylor, Mrs. E. C...226 E. Anson, Upland (46989)
Rifner, Mrs. Eugene..R. R. 1, Van Buren (46991)
McIlwain, Mrs. Robert....484 South Shore, Culver (46511)
Shrock, Mrs. E. E.....Box 187, Amboy (46911)

HAMILTON COUNTY

Karlick, Mrs. Joseph R.....Arcadia (46030)
Donahue, Mrs. C. M.
140 E. Main St., Carmel (46032)
Freeman, Mrs. Max E.
445 W. Smoky Rd., Carmel (46032)
Thomas, Mrs. W. Clayton
80 4th Ave. S.E., Carmel (46032)

Noblesville
(*Zip Code* 46060)

Ambrose, Mrs. J. C.....298 N. Ninth St.
Blackburn, Mrs. Howard..14010 Allisonville Rd.
Hash, Mrs. John S.....R. R. 4
Havens, Mrs. Oscar
R. R. 1, Box 113Q, West Mount Add.
Haywood, Mrs. John G.....Craig Highlands
Kraft, Mrs. Haldon C.....15075 Allisonville Rd.
Lanning, Mrs. R. Adrian.....R. R. 2
Lloyd, Mrs. Joe R.....559 Sunset Dr.
Shanks, Mrs. Ray W.....14050 Allisonville Rd.

Manhart, Mrs. Doyle B.....R. R. 2, Sheridan (46069)
Newby, Mrs. Eugene.....R. R. 1, Sheridan (46069)
Waitt, Mrs. Paul.....406 E. Fifth St., Sheridan (46069)
Connoy, Mrs. Andrew
139 N. Union, Westfield (46074)

HANCOCK COUNTY

Johnston, Mrs. W. R.....Charlottesville (46117)
Scott, Mrs. Robert.....Charlottesville (46117)
Garrison, Mrs. James.....Cumberland (46229)
Rhynearson, Mrs. Hal R.
306 W. Staat St., Fortville (46040)

Greenfield
(*Zip Code* 46140)

Allen, Mrs. Joseph.....210 E. Lincoln
Anderson, Mrs. James T.....311 Madison Dr.
Beeson, Mrs. Wilbur.....209 N. Penn
Endicott, Mrs. Wayne.....115 McClelland
Farrell, Mrs. John J., Jr.....North St., Rd. 9
Henn, Mrs. R. Anthony.....137 W. Michigan
Hunter, Mrs. Donn R.....630 N. Spring St.
Kinneman, Mrs. Robert E.....120 McClelland Dr.
Kirby, Mrs. Ted C.....122 Grandison Rd.
Moenning, Mrs. John E.....1517 Bowman Dr.
Pareja, Mrs. Frank.....114 Grant
Rea, Mrs. Ralph L.....Greenfield
Singco, Mrs. Bienvenido O.....1513 Brunner Dr.
Smith, Mrs. John H.....144 Grandison Rd.
Vingis, Mrs. Bronie A.....705 N. State St.
Woods, Mrs. James R.....18 Lincoln

Pierson, Mrs. Thomas A...New Palestine (46163)
Cagle, Mrs. Robert.....New Palestine (46163)
Arive, Mrs. Floro F.
6264 Redhaw Lane, Oaklandon (46236)
Miller, Mrs. Joseph A.....R. R. 12, Box 230 Y, Oaklandon (46236)
Kuhn, Mrs. Robert.....Wilkinson (46186)

HENDRICKS COUNTY

Black, Mrs. James...8 Green Acre Ct., Brownsburg (46112)
Foltz, Mrs. Lloyd.....North Ridge, Brownsburg (46112)
Scudder, Mrs. A. N.....24 N. Grant, Brownsburg (46112)
Walker, Mrs. Thomas
R. R. 1, Box 93-A, Brownsburg (46112)

Danville
(*Zip Code* 46122)

Calhoon, Mrs. John.....R. R. 3, Box 1
Cheesman, Mrs. Donald D.....37 Orchard Lane
Coats, Mrs. Eli.....R. R. 3, Box 79E
Gibbs, Mrs. Joseph W.....445 E. Mill St.
Heinlein, Mrs. Carl L.....540 S. Cross
Kerlin, Mrs. Joseph.....16 Urban St.
Kirtley, Mrs. Robert W.....R. R. 3, Box 196
Koch, Mrs. Elmer.....301 S. Bowen
Terry, Mrs. Lloyd.....292 W. Marion

Ellis, Mrs. L. Hall.....Lizton (46149)
Scamahorn, Mrs. Malcolm O.....Pittsboro (46167)

Plainfield
(*Zip Code* 46168)

Cohen, Mrs. Irving.....645 E. Main St.
Haggard, Mrs. David B.....R. R. 2, Box 232
Stafford, Mrs. William C.....P.O. Box 97C
Warbinton, Mrs. Fred P.....504 S. Carr Road

HENRY COUNTY

New Castle
(*Zip Code* 47362)

Amos, Mrs. Robert L.....924 Lincoln Ave.

Bledsoe, Mrs. James G.....Hillsboro Rd.
Brock, Mrs. J. T.....100 Van Nuys Rd.
Burnett, Mrs. Arthur B.....801 Melody Lane
Cain, Mrs. David R.....3701 S. Memorial Dr.
Dye, Mrs. Cloyd L.....R. R. 5
Easter, Mrs. James N.....1112 Audubon Rd.
Fisher, Mrs. John E.....1135 Woodlawn Dr.
Foster, Mrs. Ray T.....420 N. Main St.
Harrison, Mrs. Benjamin L.....233 Bundy Ave.
Heilman, Mrs. William C., Jr...1112 St. James Ct.
Hill, Mrs. Kenneth G.....707 Leland
KinKade, Mrs. Paul T.....3306 W. Acre Dr.
Life, Mrs. Homer L.....1107 St. James Ct.
McDonald, Mrs. Frank C.....365 Trojan Lane
McElroy, Mrs. James S.....1213 Audubon Rd.
May, Mrs. A. J.....319 S. 14th St.
Murray, Mrs. William E.....100 Van Nuys Rd.
Saint, Mrs. William.....705 Hawthorn Rd.
Smith, Mrs. Mark.....631 S. 11th St.
Steussy, Mrs. Calvin N.....601 Hoosier Dr.
Stricker, Mrs. Paul J.....719 Fair Oaks Dr.
Stout, Mrs. Walter M.....1103 Audubon Rd.
Vivian, Mrs. Donald E.....R. R. 4
Wiggins, Mrs. D. S.....219 S. 12th St.
Wilhelm, Mrs. Guido P.....1114 Lincoln Ave.

Wiatt, Mrs. Leonard H.
108 N. Wash. St., Knightstown (46148)
Stauffer, Mrs. George E.....Mooreland (47360)
Marshall, Mrs. Lloyd....Walnut St., Mt. Summit (47361)
Robertson, Mrs. William S.....213 W. Main St., Spiceland (47385)

HOWARD COUNTY

Smith, Mrs. Charles
10512 Spring Hill Dr., R. R. 1, Carmel (46032)
Denton, Mrs. Larkin D....S. Meridian, Greentown (46936)

Kokomo
(*Zip Code* 46901)

Adams, Mrs. C. J.....1216 W. Superior
Althoff, Mrs. William.....2501 S. Wabash
Alward, Mrs. J. H.....401 W. Walnut
Artis, Mrs. Myrle E.....900 E. Broadway
Ault, Mrs. Carl H.....3015 Dellwood Dr.
Bowers, Mrs. Copeland C.....1530 W. Taylor
Bowers, Mrs. Garvey B.....421 Morningside
Bowers, Mrs. John A.....1535 W. Jefferson
Bradley, Mrs. Richard V.....3210 Janice Dr.
Brown, Mrs. Richard J.....1916 W. Carter
Bruegge, Mrs. Theodore J.....2225 S. Wabash
Cattell, Mrs. Lee M.....1235 W. Sycamore
Clarke, Mrs. Elton R.....4320 W. Sycamore
Conley, Mrs. Thomas M.....2811 Dellwood Dr.
Craig, Mrs. R. A.....4105 W. Sycamore Rd.
Craig, Mrs. Reuben.....410 S. Hickory Lane
Doss, Mrs. Jerome....137 Westmoreland Drive E.
Earl, Mrs. Max M.....2210 S. Wabash
Elleman, Mrs. Jack.....414 W. Mulberry
Ericson, Mrs. Homer S.....124 Leafy Lane
Ferry, Mrs. Paul W.....1207 W. Sycamore
Fields, Mrs. Donald L.....3304 Tallyho Dr.
Frazier, Mrs. Jack L.....3208 Tally Ho Dr.
Fretz, Mrs. Richard C.....4701 Mayfield Dr.
Golper, Mrs. Marvin N.....411 Morningside Dr.
Good, Mrs. Richard P.....227 N. Forest Dr.
Grothouse, Mrs. Carl B.....925 Bellevue Place
Guin, Mrs. Jere D.....4401 N. Parkway
Halfast, Mrs. Richard W.....2505 Katherine Ave.
Harshman, Mrs. James....4100 Millerwood Lane
Harvey, Mrs. E. C.....118001 Crestview Blvd.
Higgins, Mrs. Jack W.....4832 N. Parkway
Hutto, Mrs. William H...4815 West Sycamore Rd.
Jewell, Mrs. G. M.....1318 W. Sycamore
Kremers, Mrs. George A.....2401 S. Wabash
Longshore, Mrs. Robert E.....145 Westmoreland
McClure, Mrs. Warren N.....309 Lody Lane
McIndoo, Mrs. R. E.....820 W. Walnut
Michael, Mrs. Robert L.....4610 W. Sycamore Rd.
Moore, Mrs. John M.....1500 Honey Lane
Morrison, Mrs. W. R.....413 Conradt Ave.
Murray, Mrs. Ernest C.....2200 S. Webster
Paris, Mrs. Durward W.....2417 S. Lafountain
Perkins, Mrs. P. L.....Miller Wood Lane
Phares, Mrs. Robert W.....1712 S. Malfalfa Rd.
Prather, Mrs. Philip E.....123 Magnolia Dr.
Quakenbush, Mrs. John P.....813 Melody Lane
Radpour, Mrs. Shokri.....4300 Millerwood Lane
Rinehart, Mrs. James.....2504 Katherine
Rudicel, Mrs. Max W.....321 Kingston Rd.
Scherschel, Mrs. Thomas R.....809 Dye Rd.
Schwartz, Mrs. F. C.....5015 W. Sycamore Rd.
Sekulich, Mrs. Milo.....4505 N. Parkway
Shenk, Mrs. Earl M.....306 N. Webster
Tate, Mrs. James.....5912 Yale Blvd.
Tignor, Mrs. Sterling P.....3464 Tallyho Dr.
Tofaute, Mrs. John L.....1721 W. Walnut St.
Trimble, Mrs. John.....1704 W. Sycamore
Van Denbark, Mrs. Howard M....5908 Yale Blvd.
Wachob, Mrs. Tom W., Jr.....1121 Highland Dr.
Walton, Mrs. F. Richard....317 N. Armstrong
Wilson, Mrs. Norman K.....1909 Greytwig

Evans, Mrs. Robert W.....Russiaville (46979)

HUNTINGTON COUNTY

Huntington
(*Zip Code* 46750)

Brubaker, Mrs. Harold S.....721 Flaxmill Rd.
Casey, Mrs. Stanley M.....408 E. Market St.
Clark, Mrs. Joseph H.....R. R. 9
Clunie, Mrs. Wm. A.....R. R. 9
Cope, Mrs. Stanton E.....1022 N. Jefferson St.
Doermann, Mrs. Paul E.....Grimm Rd., R. R. 8
Eviston, Mrs. J. Boyd.....1362 Poplar St.
Gill, Mrs. D. Richard.....6 Northway Dr.
Grayston, Mrs. Wallace S.....303 E. Market St.
Marks, Mrs. Howard H.....1120 N. Jefferson St.
Meiser, Mrs. Robert D.....1738 Cherry St.
Miller, Mrs. Wayne S.....R. R. 8
Mitman, Mrs. Floyd B.....1471 Oak St.
Peare, Mrs. Reeve B.....1517 Cherry St.
Wagner, Mrs. Richard W.....Old Andrews Rd.
Wheeler, Mrs. Barth E.....1525 Cherry St.

Cooper, Mrs. B. Trent.....Roanoke (46783)
Bennett, Mrs. J. B.....Warren (46792)

JACKSON-JENNINGS COUNTIES

Brownstown
(*Zip Code* 47220)

Gillespie, Mrs. G. R.....710 Commerce
Scharbrough, Mrs. William.....105 W. Summit
Shields, Mrs. Jack.....603 W. Spring

Crothersville
(*Zip Code* 47229)

Adair, Mrs. W. K.....208 S. Armstrong
Bard, Mrs. Frank B.....305 E. Howard

North Vernon
(*Zip Code* 47265)

Calli, Mrs. Louis J.....408 S. State
Ellis, Mrs. Forrest D.....R. R. 1
Johnson, Mrs. William A.....318 Jennings St.
Thayer, Mrs. Benet.....214 Jennings St.

Seymour
(*Zip Code* 47274)

Baxter, Mrs. Harry..710 West Dr., Sunset Pkwy.
Black, Mrs. J. M...671 Braewick Rd., Sunset Pkwy.
Blaisdell, Mrs. William F.....827 S. Pine St.

Bosch, Mrs. Ralph O..930 South Dr., Sunset Pkwy.
Day, Mrs. Durbin.....515 W. Sixth St.
Graessle, Mrs. H. P...640 East Dr., Sunset Pkwy.
Kamman, Miss Martha.....332 W. Oak St
Knotts, Mrs. Slater.....650 Greenway Court
Linson, Mrs. John C.....1430 Lady Marian Dr.
Martin, Mrs. Guy.....1408 Ewing St.
Ripley, Mrs. John W.....2001 Ewing St.
Wiethoff, Mrs. C. A...615 West Dr., Sunset Pkwy.

JASPER COUNTY

Rensselaer
(*Zip Code* 47978)

Beaver, Mrs. Raymond E.....111 Thompson St.
O'Brien, Mrs. Francis E.....530 Park Ave.
Ockermann, Mrs. Kenneth R.....202 Home St.
Williams, Mrs. Paul A.....402 N. Weston St.

JAY COUNTY

Andrews, Mrs. Frank....R. R. 2, Geneva (46740)
Donnally, Mrs. George....R. R. 1, Geneva (46740)
Rudolph, Mrs. Rosser.....Geneva (46740)
Shroyer, Mrs. Herbert..R. R. 2, Dunkirk (47336)

Portland
(*Zip Code* 47371)

Cripe, Mrs. William H.....507 W. High St.
Fitzpatrick, Mrs. James S.....405 W. Race St.
Gillum, Mrs. Eugene.....W. Votaw St
Keeling, Mrs. F. E.....609 W. Race St.
Lopez, Mrs. Alfonso.....446 W. Arch St.
Schenck, Mrs. Ralph.....R. R. 2, W. 7th St.
Spahr, Mrs. Donald E.....615 W. Race St.
Steffy, Mrs. Ralph M.....321 E. Race St.
Vormohr, Mrs. Joseph F....1011 S. Meridian St.

JOHNSON COUNTY

Franklin
(*Zip Code* 46131)

Andrews, Mrs. Hugh K.....R. F. D. 4
Bullers, Mrs. Robert C.....395 S. Home Ave.
Bullington, Mrs. George.....R. F. D. 4
Chappel, Mrs. A. T.....1101 North Dr.
Deppe, Mrs. Charles F.....1215 Park Ave.
Ferrara, Mrs. Joseph F.....1000 E. King St.
Foster, Mrs. R. H. K.....1025 Orchard Lane
Harvey, Mrs. Harry.....Methodist Home
Hibbs, Mrs. W. G.....R. F. D. 1
Jones, Mrs. Charles A.....1010 E. Adams Dr.
Mock, Mrs. Harry E.....201 E. Monroe St.
Murphy, Mrs. Harry E.....422 N. Walnut St.
Palmer, Mrs. Harley P.....Forrest Park Dr.
Province, Mrs. Wm. D.....51 N. Water St.
Records, Mrs. Arthur W.....216 E. Jefferson St.
Records, Mrs. John M.....1138 Orchard Lane
Reynolds, Mrs. Paul.....R. R. 4
Ritteman, Mrs. George.....R. R. 3, Box 19A
Roller, Mrs. Mac.....1100 Hillview Dr.
Stogsdill, Mrs. W. W.....R. R. 4
Walters, Mrs. Jack L.....1205 E. Jefferson St.
Waymire, Mrs. Wm. M.....21 South Dorm Dr.
Wesemann, Mrs. Merrill M.....17 Morning Dr.
Wilson, Mrs. Russell.....351 E. King St.

Greenwood
(*Zip Code* 46142)

Brown, Mrs. George E.....404 Beech Park Dr.
Link, Mrs. Charles.....208 S. Fairview
Machledt, Mrs. John.....243 S. Madison
MacQuigg, Mrs. David..El Dorado Estates, R. R. 4
Ogle, Mrs. Robert.....474 W. Wiley
Sheek, Mrs. Kenneth I.....407 S. Forest Dr.
Tiley, Mrs. George.....40 N. Madison
Young, Mrs. Joseph W.....904 Beech Park Dr.

Deogracias, Mrs. Francisco D..Edinburgh (46124)

KNOX COUNTY

Vincennes
(*Zip Code* 47591)

Anderson, Mrs. John B.....1222 Forest Hill Dr.
Anderson, Mrs. Richard M.....Monroe City Rd.
Arbogast, Mrs. Paul B.....1420 Old Orchard Rd.
Barrett, Mrs. Thomas L.....2520 Old Orchard Rd.
Bartlett, Mrs. Donald T.....1315 McDowell Rd.
Beckes, Mrs. Ellsworth.....220 N. 5th
Black, Mrs. Boyd K.....1008 State Road 67-N
Cantwell, Mrs. E. R.....P.O. Box 444
Chattin, Mrs. Herbert O.....729 Main St.
Coffel, Mrs. Melvin H.....Simpson Lake
Combs, Mrs. Daniel J.....1325 McDowell Ave.
Corsentino, Mrs. Bart E.....110 State Road 67
Curtner, Mrs. Myron L.....216 N. Sixth St.
Dayson, Mrs. Louie O.....R. R. 2
Floyd, Mrs. Malcolm.....R. R. 1
Haswell, Mrs. John N.....719 Busseron St.
Hendrix, Mrs. Charles.....1202 E. Sycamore
Jacqmain, Mrs. Ralph J.....Monroe City Rd.
McCormick, Mrs. Hubert D.....518 N. Fourth St.
McDowell, Mrs. M. M.....1322 Audubon Rd.
McMahan, Mrs. Virgil C.....Monroe City Rd.
Miller, Mrs. Charles L.....P. O. Box 201
Murray, Mrs. John.....3207 Hillcrest Rd.
Nichols, Mrs. Robert J.....1906 John R. Rd.
Parmenter, Mrs. Harry B.....205 Elm Lane
Shanklin, Mrs. Jack L.....1545 Barnett Lane
Spencer, Mrs. Frederic.....902 Perry St.
Stein, Mrs. Richard H.....1209 Old Orchard Rd.
Stewart, Mrs. Frank W.....Hillcrest Rd.
Vaughn, Mrs. Walter R.....2018 Prospect Ave.
Von der Lieth, Mrs. William C.....R. R. 3
Welch, Mrs. Norbert M.....Monroe City Rd.

KOSCIUSKO COUNTY

Urschel, Mrs. Dan L.....Mentone (46539)
Wilson, Mrs. Wymond B...P. O. Box 421, Mentone (46539)
Pierson, Mrs. Pearl H.....R. R. 1, Silver Lake (46982)
Baum, Mrs. John R.....307 7th St., Winona Lake (46590)

Warsaw
(*Zip Code* 46580)

Arford, Mrs. John E.....1319 E. Center St.
Cron, Mrs. William J.....1548 Country Club Dr.
Hashemi, Mrs. Hossein.....1306 Ranch Rd.
Haymond, Mrs. George M...945 Country Club Dr.
Keough, Mrs. Thomas F.....322 N. Lake St.
Moser, Mrs. Arthur.....335 E. Main
Murphy, Mrs. Samuel C.....216 South High St.
Parke, Mrs. William.....1922 Rosemont
Snider, Mrs. Ronald P.....Springhill Acres
Thomas, Mrs. E. Winton.....711 E. Main St.
Laird, Mrs. L. A.
17715 Gulf Blvd., St. Petersburg, Fla. (33708)

LAKE COUNTY

Cedar Lake
(*Zip Code* 46303)

Babcoke, Mrs. Gary.....R. R. 1, Box 28
Misch, Mrs. William A.....R. R. 4, Box 58

Crown Point
(*Zip Code* 46307)

Han, Mrs. Daniel.....Rt. 7, Box 138K
Horst, Mrs. William.....468 Lake St.
Mirich, Mrs. Ernest C.....940 W. 66th Ave.

East Chicago
(*Zip Code* 46312)

Campagna, Mrs. E. A.....2004 Joyland
Ernst, Mrs. H. C.....4219 Baring Ave.

Grosso, Mrs. William.....4132 Northcote
Niblick, Mrs. James S.....4115 Fir St.
Serna, Mrs. Jesus A.....4316 Parrish Ave.
Shapiro, Mrs. Joseph.....4214 Parrish Ave.

East Gary

(*Zip Code* 46405)

Markle, Mrs. Joseph G.....3143 Ripley

Gary

(*Zip Code* 464 *plus zone number*)

Agana, Mrs. Adriano.....6121 Birch (03)
Almquist, Mrs. C. O.....550 Lincoln St. (02)
Amico, Mrs. P. J.....2119 W. 50th Place (08)
Barton, Mrs. Reginald R...7737 Forrest Ave. (03)
Bills, Mrs. Robert N.....534 Lincoln St. (02)
Brady, Mrs. S. J.....451 Garfield (04)
Brincko, Mrs. John.....3537 Harrison St. (08)
Carbone, Mrs. Joseph A.....526 Johnson St. (02)
English, Mrs. Hubert M.....575 Taft St. (04)
Gallinatti, Mrs. J. J.....7900 Ash Ave. (03)
Gregoline, Mrs. Eugene..129 Glen Park Ave. (08)
Kaltenthaler, Mrs. Albert....5981 Grant Pl. (08)
Kolettis, Mrs. J. G.....6401 Chanticleer Lane (08)
Kopcha, Mrs. Joseph E.....650 Pierce St. (02)
Lopez, Mrs. Santiago.....5380 Connecticut (09)
Manalo, Mrs. F. S.....538 Lincoln St. (02)
Martino, Mrs. Robert S....3000 W. 55th Ave. (08)
Mason, Mrs. Earl J.....2000 W. 5th Ave. (04)
Mather, Mrs. J. Winford..7224 Maple Ave. (03)
Mayorga, Mrs. Alfredo....1811 W. 54th Ave. (08)
Oberlander, Mrs. Seymour.....6701 Ash (03)
Ornelas, Mrs. Joseph P...6339 Oakwood Lane (08)
Pappas, Mrs. Edward T.....569 Pierce St. (02)
Robinson, Mrs. Walter K..500 N. Montgomery St. (03)
Roth, Mrs. Leo.....7033 E. 1st Ave. (03)
Rubin, Mrs. Simon S.....2131 W. Fifth Ave. (04)
Saavedra, Mrs. B.....5796 Marshall Pl. (08)
Sala, Mrs. Joseph.....2333 W. 55th Ave. (04)
Schulz, Mrs. Kurt J.....2521 W. 58th Pl. (08)
Senese, Mrs. Thomas.....581 Johnson (02)
Stimson, Mrs. Harry R...4338 Jefferson St. (08)
Valencia, Mrs. M. M.....7700 Hemlock (03)
Volan, Mrs. Geo. J...430 South Grand Blvd. (03)
Young, Mrs. George M..4580 Washington St. (08)

Griffith

(*Zip Code* 46319)

Lundeberg, Mrs. Ralph A.....1211 N. Harvey
Riordan, Mrs. John.....318 W. Glen Park Ave.
Siekierski, Mrs. J. M.....445 N. Broad Street

Hammond

(*Zip Code* 463 *plus zone number*)

Allegretti, Mrs. Michael L..6237 Forest Ave. (24)
Barron, Mrs. Elmer A.....6635 Kansas (23)
Beconovich, Mrs. Robert....6540 Forest Ave. (24)
Cotter, Mrs. Edward R..7225 Knickerbocker Pkwy. (23)
Dragomer, Mrs. A. S.....6629 Carolina Ave. (23)
Eggers, Mrs. H. W.....6542 Hohman (20)
Egnatz, Mrs. Nicholas....820 Highland St. (20)
Elledge, Mrs. Ray.....6415 Forest Ave. (24)
Fischer, Mrs. Burnell.....49 Indi-Illi Park (24)
Gevirtz, Mrs. Milton B...7142 Hohman Ave. (24)
Grabow, Mrs. E. F.....6501 Moraine (24)
Hack, Mrs. Edmund C.....7147 Olcott St. (23)
Hickman, Mrs. A. Lee, Jr.....7412 Knickerbocker (23)
Howard, Mrs. Wm. H.....8417 Parkview (22)
Husted, Mrs. Robert G...7248 Forest Ave. (24)
Jones, Mrs. E. S.....50 Kenwood St. (24)
Koransky, Mrs. David S...7048 Forest Ave. (24)
Kretsch, Mrs. Russell W...7214 Hohman Ave. (24)
Marks, Mrs. Ora L.....7111 Olcott Ave. (23)
Maroc, Mrs. James.....6826 Rosewood (24)
Mason, Mrs. Richard L.....6915 Magoun (23)
Neal, Mrs. L. W.....7301 Forest Ave. (24)
Panares, Mrs. Solomon V.....4 172nd Pl. (24)
Peck, Mrs. Edward A.....6422 Moraine Ave. (24)
Pilot, Mrs. Jean..7137 Knickerbocker Pkwy. (23)
Polite, Mrs. Nicholas L.....7320 California (23)
Ramker, Mrs. Daniel T...7129 Arizona Ave. (23)
Remich, Mrs. Antone C...6412 Moraine Ave. (24)
Repay, Mrs. W. A..7130 Knickerbocker Pkwy. (23)
Rhind, Mrs. A. W.....7126 Forest Ave. (24)
Rosevear, Mrs. Henry J...6531 Forest Ave. (24)
Row, Mrs. Perrie Q.....6712 Hohman Ave. (24)
Rubright, Mrs. Robert L...7258 Forest Ave. (24)
Rudolph, Mrs. F. G.....6607 Forest Ave. (24)
Schlesinger, Mrs. Daniel J..6633 Forest Ave. (24)
Schulfer, Mrs. R. J.....1045 River Dr. (24)
Stern, Mrs. S. Lewis.....226 Oakwood (24)
Thegze, Mrs. George A.....7435 Olcott Ave. (23)
Trachtenberg, Mrs. Lee.....7226 Tilly Dr. (24)

Highland

(*Zip Code* 46322)

Bacevich, Mrs. A. J.....8737 Parkway Dr.
Dumanian, Mrs. Ara V.....8727 Parkway Dr.
Frieske, Mrs. D. A.....2107 Ridgewood
Lopez, Mrs. F.....3045 W. 45th St.
Reed, Mrs. Ronald.....2100 Kenilworth
Tilka, Mrs. E. C.....8740 Parkway Dr.
Willardo, Mrs. A. T.....8712 Idlewild

Hobart

(*Zip Code* 46342)

Bernard, Mrs. Marvin R.....6430 Grand Blvd.
Cabrera, Mrs. P. B.....3408 Randolph Pl.
Glover, Mrs. W. J.....420 S. Wabash
Penn, Mrs. Robert A.....3901 E. 34th Court
Pike, Mrs. Warren.....6262 Grand Blvd.
Reed, Mrs. John.....445 Kelley
Stookey, Mrs. Richard.....1124 S. State St.

Munster

(*Zip Code* 46321)

Alt, Mrs. Edward M. Jr.....8804 Baring
Arbeiter, Mrs. Herbert I.....119 Beverly Place
Arrowsmith, Mrs. James L.....8138 Forest Ave.
Benchik, Mrs. Frank A.....8326 Hawthorne Dr.
Bombar, Mrs. Leslie E.....8318 Oakwood
Boys, Mrs. F. F.....8517 Crestwood Ave.
Branco, Mrs. Arthur M.....1224 Melbrook
Brodersen, Mrs. J. D.....7641 Forest Ave.
Chael, Mrs. Tom C.....225 Belmont Place
Costello, Mrs. Albert J.....1404 Fisher
DePorter, Mrs. L. A.....1448 Melbrook Drive
Egnatz, Mrs. Charles D.....1436 Janice Lane
Espino, Mrs. J. C.....8523 Forest Ave.
Fleischer, Mrs. J. C.....8345 Northcote
Fox, Mrs. J. M.....1448 Oak Park
Gardiner, Mrs. H. Glenn.....1406 McArthur
Goldenberg, Mrs. Mitchell E.....8212 Euclid
Gross, Mrs. Joseph.....1505 MacArthur
Gustaitis, Mrs. John W.....1843 Crestwood
Harvey, Mrs. David M.....8013 Monroe
Hehemann, Mrs. W. V.....8718 Northcote
Hirsch, Mrs. Melvin L..Apt. 2, 8952 Whiteoak Ave.
Kelly, Mrs. G. G.....1335 Elliott Dr.
Kenney, Mrs. Francis.....8131 Forest Ave.
Kuhn, Mrs. Arthur J.....1535 35th St.
Lanman, Mrs. John U.....1321 Elliott Dr.
Lautz, Mrs. Herbert A.....7943 Forest Ave.
Long, Mrs. Keith J.....1327 Ridgeway
Madlang, Mrs. R. M.....7750 Hohman Ave.
Marks, Mrs. Salvo P.....8320 Parkview Ave.
Marshall, Mrs. W. J.....1306 Elliott Dr.
Mason, Mrs. John C.....1440 Fisher
Mintz, Mrs. A. M.....1423 Kraft Dr.
Modjeski, Mrs. Raymond J.....1448 Elliott Dr.
Montes, Mrs. H.....7915 Hohman Ave.
Morris, Mrs. W. H., Jr.....8044 Forest Ave.
Nierman, Mrs. Murray.....1544 Fischer

Paul, Mrs. Eudell G.....7905 Hohman Ave.
Polydefkis, Mrs. D.....25 Terrace Dr.
Rasch, Mrs. George C.....1519 35th St.
Rosenthal, Mrs. Carl.....8330 Schrieber Dr.
Santare, Mrs. V. J.....1336 Melbrook
Schlesinger, Mrs. Jacob.....7648 Hohman Ave.
Smith, Mrs. Jerald.....1234 Melbrook
Smitley, Mrs. Roger P.....1519 Janice Lane
Snyder, Mrs. Jerome.....1210 Park Drive
Sroka, Mrs. Stanley J.....8516 Hawthorne Dr.
Stevens, Mrs. Edwin W.....8627 Beech
Sweany, Mrs. S. K.....8030 Jackson
Teplinsky, Mrs. Louis.....1526 Twelve Oak Dr.
Valderrama, Mrs. Hugo.....1325 MacArthur
Vitacca, Mrs. Rocco.....7635 Forest Ave.
Walker, Mrs. Adolph.....1504 Park Dr.
Wooden, Mrs. Thomas F.....8351 Crestwood

Ambrozaitis, Mrs. Kazys
35 Crest Dr., Chesterton (46304)
Angeles, Mrs. Uldarico A.....16 Shore Drive, Ogden Dunes (46368)
Dimitroff, Mrs. Lambro
1021 Forest Hills, Calumet City, Ill. (60409)
Feinsot, Mrs. Irving
17 Forestdale Park, Calumet City, Ill. (60409)
Feldner, Mrs. Ronald P.
17717 Bernardine, Lansing, Ill. (60438)
Milos, Mrs. Robert J.
151 Shore Dr., Portage (46368)
Psomatakis, Mrs. E.....189 Graymoor Lane, Olympia Fields, Ill. (60461)
Tyrrell, Mrs. J.
16041 S. Ellis, South Holland, Ill. (60473)

LaPORTE COUNTY

LaPorte

(*Zip Code* 46350)

Backer, Mrs. George P.....1533 Michigan Ave.
Carter, Mrs. Fred S.....208 Forest Dr.
Datzman, Mrs. Basil J.....1421 Indiana Ave.
Durham, Mrs. Lowell J.....205 Forest Dr.
Elshout, Mrs. Clem H.....104 First St.
Farnsworth, Mrs. S. A.....214 Lakeshore Dr.
Feinn, Mrs. Harry S.....1534 Michigan Ave.
Kelsey, Mrs. Robert M., Jr.....1305 Indiana Ave.
Kepler, Mrs. Robert W.....1529 Michigan Ave.
Kim, Mrs. Joon S.....2205 Woodlawn Dr.
Lansford, Mrs. Kenneth G.....205 Canterbury Dr.
Larson, Mrs. Goyt O.....Ridgefield Addition
Mladick, Mrs. Edward A.....314 Holton Rd.
Moore, Mrs. William G.....2203 Southwest Rd.
Mueller, Mrs. Edwin C.....117 Evergreen Dr.
Oak, Mrs. David D.....1104 Andrew Ave.
Philbrook, Mrs. Seth S.....212 Forest Dr.
Richter, Mrs. John C.....2020 Beechwood Ct.
Sanchez, Mrs. Jose.....2424 Monroe St.
Scott, Mrs. John S.....508 Lakeshore Dr.
Sirugo, Mrs. Aldo C.....202 Forest Dr.
Smith, Mrs. John.....1533 Weller
von Asch, Mrs. George.....2030 Michigan Ave.
Wolf, Mrs. Wm. E.....Lakewood Lair
Zahrt, Mrs. Frank H.....1611 Indiana Ave.

Mannion, Mrs. Rodney A.
2016 Juneway, L.B., Michigan City (46360)
Stark, Mrs. Wm...2821 Elbridge Way, Long Beach, Michigan City (46360)

LAWRENCE COUNTY

Bedford

(*Zip Code* 47421)

Austin, Mrs. Richard P.....1315 15th St.
Crosby, Mrs. Reid C.....11 Saddler Court
Duncan, Mrs. Raymond E.....407 Northwood Dr.
Dusard, Mrs. Joseph C.....1107 N. St.
Edmonds, Mrs. Kendrick T.....438 Sycamore
Emery, Mrs. Charles B.....Brook Knoll
Fountaine, Mrs. Thomas J.....1620 18th St.
Hawkins, Mrs. Richard D.....Box 286
Kasting, Mrs. Gerald E.....Parkview Addition
Kerr, Mrs. Donald M.....1415 20th St.
Morrow, Mrs. Robert J.....R. 5, Brook Knoll
Noe, Mrs. William R.....118 Woodhill Dr.
Reuter, Mrs. John W.....Brook Knoll
Scherschel, Mrs. John P.....1713 H St.
Sorrells, Mrs. George W., Jr.....212 Lori Lane
Waldo, Mrs. Guy H., Jr.....308 Eastwood Dr.
Wohlfeld, Mrs. J. B.....1224 15th St.
Woolery, Mrs. Richard H.....2020 Denson Ave.

Benham, Mrs. Lawrence E.....R. R. 2, Springville (47462)

MADISON COUNTY

Leroy, Mrs. A. G.....Alexandria (46001)

Anderson

(*Zip Code* 46011 *unless otherwise indicated*)

Aagesen, Mrs. W. J.....3 Wind Ridge Rd.
Abell, Mrs. William A.....2536 W. 12th St.
Armington, Mrs. Charles L.....823 W. Seventh St. (16)
Austin, Mrs. Charles E.....1612 Westwood Dr.
Baughn, Mrs. William L.....1517 Winding Way
Beeler, Mrs. Frank K.....20 Overlook Dr.
Bixler, Mrs. Donald P.....1611 Van Buskirk Rd.
Blassaras, Mrs. Crist A.....916 Dresser Dr.
Bowers, Mrs. Richard C.....1110 Greenway Dr.
Bridges, Mrs. Alvin L.....R. R. 2, Box 296 A
Buckles, Mrs. David L.....44 Knoll Rd.
Caudill, Mrs. Rodney.....311 W. Eighth St. (16)
Conrad, Mrs. Ernest M.. 2124 Meridian St. (14)
Denny, Mrs. Melvin H.....1103 Dresser Dr.
Doenges, Mrs. James L.....Whitehall Place
Donaldson, Mrs. Frank C.....2 Wind Ridge Rd.
Drake, Mrs. James R.....2210 W. 12th St.
Drake, Mrs. John C.....920 N. Madison Ave.
Drennen, Mrs. Robert V...1230 E. Chesterfield Dr. (12)
Dulin, Mrs. Basil B.....1120 Maryland Drive
Ellis, Mrs. Seth W.....1105 Green Way Dr.
Elsten, Mrs. Wayne A.
1333 Maryland Dr., Forest Manor
Erehart, Mrs. Archie D.....2214 W. Ninth St.
Faust, Mrs. Howard, Jr.....1321 W. Eighth St.
Ferguson, Mrs. Donald H.....3430 Redwood Rd.
Fischer, Mrs. Warren E.....1410 Van Buskirk Rd.
Gahimer, Mrs. Joseph E.....1515 Greenway Dr.
Gante, Mrs. Henry W.....2005 Nichol Ave.
Gholz, Mrs. Lawrence.....3421 Laurel Lane
Gray, Mrs. William J..805 Country Club Lane (12)
Hart, Mrs. William D.....1720 Edgewood Dr.
Hensler, Mrs. Benton.....13 Wind Ridge Rd.
Jarrett, Mrs. Paul.....2541 North Shore Dr.
Jones, Mrs. Albert T.....3316 Cherry Rd.
Jones, Mrs. David G.....R. R. 5, Box 187
Kepner, Mrs. R. S.....909 Forest Dr.
Kiely, Mrs. John T.....1011 Raible
King, Mrs. Charles R.....6414 Rosalind Lane
King, Mrs. Joseph W.....1646 Corlett Way
Kopp, Mrs. William R.....2410 W. 12th St.
Lamey, Mrs. Paul T.....1740 W. 10th St.
Land, Mrs. Richard.....713 Winding Way
Larmore, Mrs. Joseph L.....1301 Winding Way
Long, Mrs. Paul L.....828 Dresser Dr.
Metcalf, Mrs. George B...830 W. Eighth St. (16)
Miethke, Mrs. Richard.....3324 Cherry Rd.
Moneyhun, Mrs. James E.....1815 Ivy Dr.
Morris, Mrs. Robert A.....410 Golf Club Rd.
Neale, Mrs. Alfred E.....725 Forest Dr.
Nesbit, Mrs. Leonard L.....60 River Forest
Patterson, Mrs. William K.....3 South Park Dr.
Polhemus, Mrs. Warren C.....1300 W. 11th St.
Price, Mrs. Ambrose M..3821 St. Rd. 9, North (12)
Reynolds, Mrs. Ralph E.....1716 Winding Way

Rosenbaum, Mrs. Lloyd E.....804 Dresser Dr.
Ross, Mrs. Guy E.....1124 N. Madison Ave.
Sheldon, Mrs. Suel A.....2812 Greenbriar Rd.
Stamper, Mrs. Jos. H..619 State Rd. 67 West (13)
Stamper, Mrs. Robert J.....R. R. 6, Box 78A
Starks, Mrs. William O.....1525 Winding Way
Stinson, Mrs. William M.....17 River Forest
Swan, Mrs. Richard C.....707 Forest Dr.
Szumilas, Mrs. Peter P...5011 Saddle Lane (14)
Taylor, Mrs. James A.....3232 Maryland Dr.
Wagoner, Mrs. John R.....3522 Hawthorne Rd.
Webb, Mrs. Harry D.....1308 Maryland Dr.
Weiss, Mrs. Louis L.....1225 N. Madison Ave.
Whitaker, Mrs. Jack D.....3235 Maryland Dr.
Wilkinson, Mrs. Roger L.....404 Central Way
Williams, Mrs. Francis M.....1012 Park Rd.
Williams, Mrs. Robert H...715 North Shore Blvd.
Wishard, Mrs. Fred B.....2604 E. 4th St. (12)
Woodbury, Mrs. C. R.....R. R. 4, Box 410

Bishop, Mrs. Harry A.....Frankton (46044)
Williams, Mrs. Robert D.....Markleville (46056)
Doles, Mrs. Ted S.
613 N. 10th, Middletown (47356)
Foley, Mrs. Phillip D.....613 N. 10th St., Middletown (47356)
Begley, Mrs. Robert W.
R. R. 2, Box 220-A, Pendleton (46064)
Benedict, Mrs. Harold G.
222 W. State St., Pendleton (46064)
McLaughlin, Mrs. C. B..R. R. 2, Pendleton (46064)
Van Ness, Mrs. William.216 S. Main Summitville (46070)

MARION COUNTY

Duncan, Mrs. Stuart J.....1005 Churchman Ave., Beech Grove (46107)
Ramage, Mrs. Walter F.....244 S. First St., Beech Grove (46107)
Link, Mrs. Goethe.....Box 84, Brooklyn (46111)
Balch, Mrs. James F., Jr.
1811 Hamilton Lane, R. R. 1, Carmel (46032)
Cuthbert, Mrs. Marvin P..R. R. 2, Box 386, Carmel (46032)
Foster, Mrs. Lee N.....428-A Smokey Rd., R. R. 2, Carmel (46032)
Hasewinkel, Mrs. Carroll W.
R. R. 2, Box 354, Carmel (46032)
Karsell, Mrs. William A.....10518 Hussey Lane, Carmel (46032)
MacDougall, Mrs. John D.....R. R. 1, Box 170-B, Westfield (46074)
Megenhardt, Mrs. Dennis S.....R. R. 1, Box 5, Carmel (46032)
Nolin, Mrs. Richard T..R. R. 2, Box 323D, Carmel (46032)
Permer, Mrs. Erwin....R. R. 1, Box 619-F, Carmel (46032)
Schaffer, Mrs. Edward V.....Box 614-A, R. R.1, Carmel (46032)
Brown, Mrs. Earl S.
R. R. 4, Box 70, Greenwood (46142)
Onyett, Mrs. Harold R..R. R. 3, Box 32, Greenwood (46142)

Indianapolis

(*Zip Code* 462 *plus zone number*)

A

Albertson, Mrs. Frank.....5813 N. Bosart (20)
Aldrich, Mrs. Harry D.....5805 Sherman Dr. (20)
Alig, Mrs. Vincent B.....6453 Green Leaves (20)
Allen, Mrs. Robert K.....737 Sherwood Dr. (40)
Alvis, Mrs. David.....7758 Kenworthy Dr. (60)
Alvis, Mrs. Edmond O.....474 W. 92nd St. (60)
Anshutz, Mrs. William M..6340 Braemore Rd. (20)
Antreasian, Mrs. Berj.....5465 Mark Lane (26)
Appel, Mrs. Richard H.....122 E. 61st St. (20)
Applegate, Mrs. Geo. W...7661 Harcourt Rd. (60)
Arbogast, Mrs. John L. 3933 Washington Blvd. (5)
Armer, Mrs. Robert M...4208 Cold Springs Rd. (8)
Asher, Mrs. Ernest O.....4640 W. 71st St. (68)
Asher, Mrs. James W.....R. R. 16, Box 355 (78)
Avery, Mrs. George O...5321 N. Kessler Blvd. (8)

B

Bader, Mrs. Joseph.....3910 Rue Renoir (20)
Bachmann, Mrs. Arnold J.....1615 Oles Drive (8)
Bakemeier, Mrs. Otto H..5535 E. St. Clair St. (19)
Bakemeier, Mrs. Robert E.
1303 N. Arlington Ave., Suite #4 (19)
Baker, Mrs. Charles R.....4819 Alameda Rd. (08)
Balch, Mrs. James E.....6829 Willow Rd. (20)
Ball, Mrs. Joseph E.....6612 E. Ninth St. (19)
Baptisti, Mrs. Arthur, Jr....600 N. Alabama (4)
Barden, Mrs. Tom P.
4104 Melbourne Rd., S. Dr. (8)
Bastnagel, Mrs. William F.
5430 Washington Blvd. (20)
Bates, Mrs. Laurence H.....3525 Beeler Ave. (24)
Batman, Mrs. Gordon W.
6906 N. Delaware St. (20)
Battersby, Mrs. J. Stanley..6001 Sunset Lane (8)
Bauer, Mrs. Thomas B...7685 Clarendon Rd. (60)
Baumeister, Mrs. Herbert E. ...4421 E. 75th (50)
Baxter, Mrs. John P. ..7247 Whitehall Dr. (26)
Beasley, Mrs. Thos. J.....715 E. 70th Place (20)
Beaver, Mrs. Howard W.
303 E. Edgewood Ave. (27)
Beck, Mrs. Evart M.....6445 N. Olney St. (20)
Becker, Mrs. Harry G...5641 Haverford Ave. (20)
Beeler, Mrs. John W.....7974 N. Illinois St. (60)
Beeler, Mrs. Raymond C. ..3777 N. Meridian (8)
Belt, Mrs. James H.....8652 Emerald Lane (60)
Benedict, Mrs. Paul F.....2550 Blue Grass Dr. (8)
Bennett, Mrs. Ivan F.....R. R. 18, Box 285 (24)
Berman, Mrs. J. K.....2810 W. 38th St. (8)
Bhagwandin, Mrs. Harry O.
9115 E. Troy Ave. (39)
Bibler, Mrs. Lester D.
4360 N. Pennsylvania St. (5)
Blackwell, Mrs. Donald S...3322 Lincoln Court (8)
Blatt, Mrs. A. Ebner....5330 N. Illinois St. (8)
Boling, Mrs. Fred F..3333 Melbourne Rd. S. Dr. (8)
Boling, Mrs. Grover C., Jr.
6205 Bramshaw Rd. (20)
Bond, Mrs. William H.....4525 W. 59th St. (54)
Booth, Mrs. Boynton H...5735 Braewick Rd. (26)
Bowman, Mrs. George W.
5634 Carrollton Ave. (20)
Boyer, Mrs. Floyd A.....136 S. Wittfield St. (19)
Brady, Mrs. Thomas A., Jr.
225 Wellington Rd. (60)
Brayton, Mrs. John R.
3128 E. Fall Creek Blvd., N. Dr. (5)
Brayton, Mrs. Lee.....5540 N. Illinois St. (8)
Brickley, Mrs. Richard A.
4530 Crooked Creek Ridge Dr. (08)
Brillhart, Mrs. James R.....4420 E. 75th St. (50)
Brodie, Mrs. Donald W....R. R. 13, Box 397 (36)
Brooks, Mrs. Fred.....1660 Cunningham Dr. (24)
Brown, Mrs. Archie E.
4145 Melbourne Rd., W. Dr. (8)
Brown, Mrs. David E....7344 Lakeside Dr. (78)
Brown, Mrs. DeWitt W., Jr.
4363 Cold Springs Rd. (8)
Brown, Mrs. Earl R., Jr.
5450 Channing Rd. (26)
Brown, Mrs. Gordon T.....8170 Oakland Rd. (40)
Brown, Mrs. Wendell E.....3750 N. Gale St. (18)
Browning, Mrs. James S.
7961 Windcombe Blvd. (40)
Brueckmann, Mrs. F. Robert
5280 Channing Rd. (26)
Burdette, Mrs. Harold....6310 Glencoe Dr. (60)
Butler, Mrs. John O.....5528 Manker Ave. (27)

C

Cahn, Mrs. Hugo....5535 N. Pennsylvania St. (20)
Cahn, Mrs. Peter H.....7025 Hoover Rd. (60)

Call, Mrs. Herbert F.....710 E. 57th St. (20)
Campbell, Mrs. H. E., Jr.
7650 Spring Mill Rd. (60)
Campbell, Mrs. Richard W.
6834 Mohawk Lane (60)
Campbell, Mrs. Robert L...8918 W. 82nd St. (78)
Caputi, Mrs. Saverio..5115 N. Meridian St. (8)
Carson, Mrs. Wayne..7177 N. Meridian St. (40)
Chattin, Mrs. William R.
4825 Cavendish Rd. (20)
Chernish, Mrs. Stanley M...4403 Radnor Rd. (26)
Christie, Mrs. Marvin C.
3340 E. Loretta Drive (27)
Clark, Mrs. Geo. A.....620 Forest Blvd. (40)
Clark, Mrs. Lawson J.
2425 E. Kessler Blvd., E. Dr. (20)
Coggeshall, Mrs. Warren E.
6305 Bramshaw Rd. (20)
Conway, Mrs. Glenn.....2235 E. Garfield Dr. (3)
Cortese, Mrs. James V.....6302 Minlo Dr. (27)
Cortese, Mrs. Thomas A., Jr.,
5316 Turtle Creek, E. Dr. #7 (27)
Cortese, Mrs. Thomas A., Sr.
3525 Payne Dr. (27)
Costin, Mrs. Robert L..8028 Morningside Dr. (40)
Countryman, Mrs. Frank 5633 Central Ave. (20)
Cross, Mrs. David G.....3001 Redfern Dr. (27)
Culbertson, Mrs. Clyde G.....6060 Park Ave. (20)
Cullen, Mrs. P. Kent.....1207 Timberlane (60)
Cullen, Mrs. Paul.....5115 Graceland (8)
Cumming, Mrs. James R...7610 Woodside Dr. (60)
Cure, Mrs. Charles W...414 W. Kessler Blvd. (08)
Currie, Mrs. Robert W.....512 E. 57th St. (20)
Curry, Mrs. R. Louis.....7250 N. Chester (40)

D

Daley, Mrs. Edward H.
5118 East Dickson Road (26)
Dallas, Mrs. F. R.....3649 E. 71st St. (20)
Dalton, Mrs. Wm. W.....4205 Otterbein Ave. (27)
Daly, Mrs. Joseph M.....5969 Singleton Ave. (27)
Darbro, Mrs. David A...5563 N. Pennsylvania (20)
Davidson, Mrs. N. Cort....2811 W. 96th St. (68)
Davis, Mrs. Bennie L...302 W. Hampton Dr. (08)
Davis, Mrs. Sam J.....4545 Broadway (5)
Dearmin, Mrs. Robert M..6616 Spring Mill Rd. (60)
DeArmond, Mrs. Albert M.
5401 N. Delaware St. (20)
Deever, Mrs. John W.....6801 S. East St. (27)
Denny, Mrs. James W.
6633 Spring Brook, N. Dr. (19)
DeWester, Mrs. Gerald M.
2802 Lindbergh Dr. (27)
Dill, Mrs. Charles W.....4111 S. Sherman Dr. (27)
Dillon, Mrs. John F.....310 Pine Dr. (27)
Dino, Mrs. Florian S.
7332 Country Brook Dr. (60)
Dolan, Mrs. Patrick A.....4905 Knollton Rd. (8)
Donahue, Mrs. James....945 Spannwood Rd. (08)
Donato, Mrs. Albert M...5915 Lawrence Dr. (26)
Doran, Mrs. J. Hal.....3705 N. Denny St. (18)
Doughty, Mrs. Samuel R...5258 Channing Ct. (26)
Douglas, Mrs. William T.
5737 Wildwood Ave. (20)
Dryden, Mrs. Gale E...5835 N. Tacoma Ave. (20)
Dugan, Mrs. William M.
5747 Rolling Ridge Rd. (20)
Dugan, Mrs. William ..7521 Mohawk Lane (60)
Dunkin, Mrs. Ramon S.....5916 Lieber Rd. (8)
Dyar, Mrs. Edwin W., Jr.....120 Arden Dr. (20)
Dyar, Mrs. Robert W.....8161 Oakland Rd. (40)
Dyke, Mrs. Richard W.....542 W. 83rd (60)
Dyken, Mrs. Paul.....5225 N. Central (20)

E

Eaton, Mrs. Edwin R.
7334 Glenview, W. Dr. (50)
Eaton, Mrs. Lyman D...R. R. 19, Box 487Y (80)
Ebert, Mrs. J. Wayne....1125 Southview Dr. (27)
Echt, Mrs. Charles R.....8003 Hoover Rd. (60)
Egbert, Mrs. Herbert L.....419 W. 63rd St. (60)
Eicher, Mrs. Palmer O. 4401 Washington Blvd. (5)
Eldridge, Mrs. Gail E.....6377 Sunset Lane (60)
Elkins, Mrs. James P.....2045 Lick Creek Dr. (3)
Ellis, Mrs. Bert E.....3910 E. 57th St. (20)
Ellis, Mrs. William N.....4908 E. 46th Street (26)
Emhardt, Mrs. John T.....3305 Brill Rd. (27)
Everly, Mrs. Ralph V.....1105 E. 58th St. (20)

F

Farrell, Mrs. Joseph T...543 N. Audubon Rd. (19)
Fausset, Mrs. C. Basil..7757 N. Meridian St. (60)
Feeney, Mrs. Martin T.....2302 E. 57th St. (20)
Ferry, Mrs. Francis A...935 E. Southern Ave. (3)
Finneran, Mrs. Joseph C.....1250 E. 80th St. (40)
Fischer, Mrs. A. Alan.....2515 Knollwood Dr. (8)
Flanders, Mrs. Robert, Jr.
7232 Sylvan Ridge Rd. (40)
Flanigan, Mrs. Meredith B. 3305 Rutledge Dr. (8)
Flora, Mrs. Joseph O.....5604 Rockville Rd. (24)
Folkening, Mrs. Norval C.....5501 Camden (27)
Fortuna, Mrs. Frank.....2535 E. Banta Rd. (27)
Fouts, Mrs. Paul J.....8393 N. Illinois St. (60)
Franklin, Mrs. William L.....33 E. 37th St. (5)
Freed, Mrs. Carl A.....4334 Springwood Trail (8)
Freeman, Mrs. Leslie W...5601 E. St. Clair (19)
French, Mrs. Richard N., Jr.
3025 Green Hills Lane, S. Dr. (22)
Fry, Mrs. Robert D.....5717 Broadway (20)
Fulton, Mrs. William H.
1934 Remington Dr. (27)
Funkhouser, Mrs. A. G.....215 E. 36th (5)

G

Gabovitch, Mrs. Edward R. 595 Holiday Lane (60)
Garber, Mrs. J. Neill..7036 N. Pennsylvania (20)
Garceau, Mrs. George J.
5539 N. Pennsylvania St. (20)
Gardiner, Mrs. Sprague H...330 W. 62nd St. (60)
Gardner, Mrs. Buckman
530 Willow Spring Rd. (40)
Garner, Mrs. W. Stanley.5209 Brief Run Dr. (26)
Gastineau, Mrs. Frank M.
2926 Lakeshore Dr., Apt. A (05)
Geider, Mrs. Roy A.
5816 Pleasant Run Pkwy., N. Dr. (19)
Geisler, Mrs. Hans E...7085 N. Pennsylvania (20)
Gick, Mrs. Herman H.....451 Eastern Ave. (1)
Gifford, Mrs. Fred E...5125 N. Meridian St. (8)
Gillespie, Mrs. Charles F..4530 Berkshire Rd. (26)
Gillespie, Mrs. Jacob E.....4426 Broadway (5)
Girod, Mrs. Donald A..3515 Melbourne Circle (08)
Glover, Mrs. John L.....4124 Sunmeadow Lane (8)
Goldman, Mrs. Samuel....428 Woodmere Dr. (60)
Gormley, Mrs. Joseph J.
4560 Crooked Creek Ridge Dr. (8)
Gosman, Mrs. James H.
4491 Washington Blvd. (5)
Graham, Mrs. Edward W.
6036 Riverview Dr. (08)
Graham, Mrs. John D...6315 Old Orchard Rd. (26)
Gray, Mrs. Howard R.....2625 Knollwood Dr. (8)
Grayson, Mrs. Ted L.....8163 Round Hill Ct. (60)
Greene, Mrs. Morgan E.
2014 Winchester Dr. (27)
Greist, Mrs. John H.
4343 Washington Blvd. N. (5)
Grief, Mrs. Robert S.....7208 N. Grand (26)
Griffin, Mrs. Leslie.....3203 W. 57th St. (8)
Griffith, Mrs. Richard S.
2002 Cunningham Rd. (24)
Grisell, Mrs. Ted L...5211 Brendon Ridge Rd. (26)
Grosz, Mrs. Hanus J.....4054 Sawyer St. (26)
Gruber, Mrs. Charles M., Jr.
3102 Kessler Blvd., E. Dr. (20)
Gustafson, Mrs. Gerald S.
5768 N. Pennsylvania St. (20)

H

Habegger, Mrs. E. Dale....3120 W. 51st St. (8)

Hackney, Mrs. Victor D....5262 Olympia Dr. (08)
Hadley, Mrs. David.5601 N. Pennsylvania St. (20)
Haggard, Mrs. Edmund B.
5914 N. Emerson Ave. (20)
Hall, Mrs. Frank M.
8633 N. Pennsylvania St. (40)
Hall, Mrs. Jack H.....5960 Braewick Rd. (26)
Hampshire, Mrs. Donald R.
7979 Morningside Dr. (40)
Hann, Mrs. E. Carl ...5218 Laurel Hall Dr. (26)
Hanna, Mrs. Thomas A.....5009 W. 15th St. (24)
Harcourt, Mrs. Allan K.
5418 Allisonville Rd. (20)
Harcourt, Mrs. Robert S...6408 Braemore Rd. (20)
Harding, Mrs. M. Richard.5440 Channing Rd. (26)
Harger, Mrs. Robert W...46 West 52nd Street (8)
Hartenbower, Mrs. David L.
734 E. Pleasant Run Pkwy., N. Dr. (03)
Haslinger, Mrs. Clarence J.
5024 LeMans Dr. (5)
Hatfield, Mrs. Nicholas W...5851 E. 54th Pl. (26)
Hawk, Mrs. James H.....400 E. 43rd St. (5)
Haynes, Mrs. John T.....4616 Cherry Lane (08)
Hays, Mrs. Everett L.....2607 Manker Ave. (3)
Healey, Mrs. Robert J.
5559 Washington Blvd. (20)
Hedrick, Mrs. Philip W.....9232 N. Delaware (40)
Helmen, Mrs. Charles H.....5269 Roland Dr. (08)
Heimburger, Mrs. Robert F.
4462 Central Ave. (20)
Helmer, Mrs. O. M.....5015 N. Illinois St. (8)
Hendricks, Mrs. Fred A..5867 N. New Jersey (20)
Henry, Mrs. R. S.....4367 Lincoln Rd. (8)
Hepburn, Mrs. Charles K.
7570 Morningside Dr. (40)
Heubi, Mrs. John E.....6904 Park Ave. (20)
Hickman, Mrs. Jack W.
3736 Spring Hollow Rd. (8)
Hicks, Mrs. Murwyn L...5212 Channing Road (26)
Hill, Mrs. Herbert..4422 Melbourne, W. Dr. (8)
Hill, Mrs. James K.....2507 Bluffwood Dr. (8)
Himelstein, Mrs. N. Harvey
5250 Olympia Dr. (8)
Hogan, Mrs. Michael A.
7330 Steinmeier Dr. (50)
Holman, Mrs. Jerome E., Jr.
5930 Central Ave. (05)
Hood, Mrs. Ainslee A...1810 Rosedale Drive (27)
Hoog, Mrs. John M.....2632 Maynard Dr. (27)
Howell, Mrs. Joseph D.....4514 E. 79th St. (50)
Hoyt, Mrs. Millard L...5725 Hunterglen Rd. (26)
Hubbard, Mrs. Jesse D.....4330 Black Oak Dr. (8)
Hudson, Mrs. Foster J.....3865 Cheviot Pl. (18)
Hull, Mrs. Ronald H.....6252 Bramshaw Rd. (20)
Hummons, Mrs. Francis D.
4045 Clarendon Rd. (8)
Hurteau, Mrs. William W...201 West 75th St. (60)
Huse, Mrs. Wm. Murray
5131 N. Pennsylvania St. (5)

I-J

Irwin, Mrs. Glenn W., Jr. 8025 N. Illinois St. (60)
James, Mrs. C. E..4504 Hidden Orchard Lane (8)
Jay, Mrs. Arthur N.....1410 Alimingo Dr. (60)
Jewett, Mrs. Joe H.....5803 Sherman Ave. (20)
Jinks, Mrs. Clifford H.....1831 E. 61st St. (20)
Johnson, Mrs. Earl H...550 W. 77th St. N. Dr. (60)
Johnson, Mrs. Cedric.....4550 Melbourne Rd. (8)
Johnson, Mrs. Thomas W.....351 W. 63rd St. (60)
Jones, Mrs. David E...5433 Hawthorne Dr. (26)
Jones, Mrs. George..8933 Southeastern Ave. (39)
(Wanamaker)
Jontz, Mrs. Jon P.....3725 Chevoit Pl. (5)
Joseph, Mrs. Rex M.....620 Hickory Lane (27)
Jowitt, Mrs. Richard H.
5390 Brendonridge Rd. (26)
Judd, Mrs. Russell L.....5327 Mark Lane (26)

K

Kahn, Mrs. Howard L.....321 W. 62nd (60)
Kaiser, Mrs. James L.....333 E. Beverly Dr. (5)
Kammen, Mrs. Leo.....7030 Central Ave. (20)
Katterjohn, Mrs. James C.
9035 Pickwick Dr. (60)
Keenan, Mrs. George B.
2015 E. Thompson Rd. (27)
Keever, Mrs. Charles H., Sr.
9016 Keever Dr., R. R. 18, Box 289 B (24)
Kendrick, Mrs. Wm. M...735 Round Hill Rd. (60)
Kennedy, Mrs. Hunter F....5790 E. Michigan (19)
Kennedy, Mrs. Joseph T.
5316 Brendonridge Rd. (26)
Kenney, Mrs. David B.....6711 E. Tenth St. (19)
Kenzler, Mrs. Jack I.....6040 E. 65th Place (20)
King, Mrs. Harold K...5430 Channing Rd. (26)
Kingsbury, Mrs. John K.
5776 E. Michigan St. (19)
Kirtley, Mrs. William R...7447 N. Park Ave. (40)
Kissel, Mrs. Wesley A...3721 Briarwood Dr. (40)
Kitterman, Mrs. Harry E.
5108 Graceland Ave. (08)
Klain, Mrs. Benjamin V.
8419 N. Pennsylvania St. (40)
Klutinoty, Mrs. George.2275 Wynnedale Rd.(8)
Kneidel, Mrs. J. H.....918 E. 57th St. (20)
Knowles, Mrs. Charles Y...5420 Channing Rd. (26)
Kohlstaedt, Mrs. Kenneth G...645 E. 80th St. (40)
Kooiker, Mrs. John E.....3540 Watson Road (5)
Koons, Mrs. Karl M.
5767 N. Pennsylvania St. (20)
Koons, Mrs. Karl M., Jr.....6634 Shelley (19)
Kornafel, Mrs. Laddie H...6201 College Ave. (20)
Kramer, Mrs. Paul W.....4138 Breton (22)
Kremp, Mrs. Richard E.
7848 New Augusta Rd. (68)
Kurlander, Mrs. Gerald J...433 Woodmere Dr. (60)
Kwitny, Mrs. I. V.....3948 Rue Renior (20)

L

LaDine, Mrs. Clarence B...5417 N. Meridian (8)
Lamb, Mrs. Emmett B...1180 Golden Hill Dr. (8)
Lamb, Mrs. Russell W....4636 N. Capitol Ave. (8)
Lamber, Mrs. Chet
3965 N. Meridian, Apt. 4D (8)
Lang, Mrs. Jay W.....54 S. Johnson Ave. (19)
Lasich, Mrs. Anthony R....5320 Channing Rd. (26)
Lawrence, Mrs. James M....4548 Manning Rd. (8)
Leasure, Mrs. J. Kent.....5823 Brockton Dr. (20)
Leffler, Mrs. William T.....250 E. 70th St. (20)
Lehman, Mrs. Evan L.
1925 N. Senate Ave., Apt. 28 (02)
LeMaster, Mrs. Theodore R.
5257 Hedgerow Dr. (26)
Leser, Mrs. Ralph U.....5434 Ashurst St. (20)
Levi, Mrs. Leon....6902 N. Pennsylvania St. (20)
Lewis, Mrs. Paul S.....6380 W. Ohio St. (24)
Lewis, Mrs. Robert J...5800 Lawrence Dr. (26)
Lichtenberg, Mrs. Melvin
8520 Canterbury Sq. East Apt. A. (60)
Lindenborg, Mrs. Paul G...6431 Creekside Dr. (20)
Lingeman, Mrs. Raleigh E.
4235 N. Pennsylvania (5)
Loehr, Mrs. Wm. M...1426 E. Kessler Blvd. (20)
Lord, Mrs. Glenn C.....7437 Holliday Dr. W. (60)
Love, Mrs. George N. 5331 Washington Blvd. (20)
Lowe, Mrs. John C.....6007 Arlington Court (26)
Lukemeyer, Mrs. George T.
8395 N. Illinois (60)
Lunsford, Mrs. Thomas E.....215 E. 71st St. (20)
Luros, Mrs. J. Theodore....156 Fairway Dr. (60)
Lybrook, Mrs. William B.
4585 Kessler Blvd., E. Dr. (20)

M

McAlpine, Mrs. Richard J...8102 Oak Hill Dr. (50)
McAree, Mrs. Francis E.
5521 Overbrook Circle (26)
McBride Mrs. James S.....720 E. 80th St. (40)
McCartney, Mrs. Donald H. 410 East 56th St. (20)

McClain, Mrs. Edwin S.
416 W. 77th St. (60)
McCormick, Mrs. Charles O., Jr.
4240 Glencairn Lane (26)
McDougal, Mrs. Robert A.
5339 Hedgerow Dr. (26)
McGrath, Mrs. Michael F.
6183 Washington Blvd. (20)
McIntyre, Mrs. James M.
7360 Hazelwood Ave. (60)
McNutt, Mrs. Cyrus C...2315 Bishoff Dr., #3 (07)
McQuiston, Mrs. Ralph J...6120 Lawrence Dr. (26)
Mackey, Mrs. John E.....940 W. 58th St. (8)
Madden, Mrs. Robert J.....1420 Audubon Rd. (19)
Manalan, Mrs. Maurice M.
7807 Meadowbrook Dr. (40)
Manion, Mrs. Marlow W.
5132 N. New Jersey St. (5)
Manning, Mrs. Randolph
202 E. 75th St. (40)
Marks, Mrs. John S., Jr.
6848 N. Pennsylvania (20)
Marshall, Mrs. Albert L., Jr.
7802 Allisonville Rd. (50)
Marshall, Mrs. Cavins R...4103 N. Illinois St. (08)
Martz, Mrs. Carl D.....7926 Hawthorne Ct. (26)
Masters, Mrs. John M.....34 E. 46th St. (5)
Masters, Mrs. Robert J.....330 W. 106th St. (90)
Matthew, Mrs. W. Burleigh
800 W. Kessler Blvd. (8)
Matthews, Mrs. B. J.....966 North Graham (19)
Matthews, Mrs. William M.
5215 Knob Lane (26)
Maxam, Mrs. Beverly T. 6220 Sunset Lane (60)
Maxwell, Mrs. Sam B...7433 Irvington Ave. (50)
Meiks, Mrs. Lyman T.
4203 N. Pennsylvania St. (5)
Melin, Mrs. John R.....2628 Knollwood Dr. (8)
Mericle, Mrs. Earl W. 8455 Washington Blvd. (40)
Mertz, Mrs. John H. O.
4725 Kessler Blvd., N. Dr. (8)
Michael, Mrs. Isaac E.....5208 Roland Dr. (8)
Middleton, Mrs. H. N...3828 Rookwood Ave. (8)
Miller, Mrs. John D.....6255 Sunnyside Rd. (26)
Miller, Mrs. Lee H...5441 Brendonridge Rd. (26)
Miller, Mrs. Roscoe E.....4330 Black Oak Dr. (8)
Mitchell, Mrs. Earl N.
1222 N. Irvington Ave. (19)
Moak, Mrs. Glenn D.....2155 Weslynn Dr. (8)
Moore, Mrs. Donald F. 1315 West 10th Street (7)
Moore, Mrs. Harold T...5802 Allisonville Rd. (20)
Morchan, Mrs. Samuel.....7007 Broadway (20)
Moriarty, Mrs. John.....6130 Smock Dr. (27)
Morrison, Mrs. Lewis E., II
5751 Wildwood Ave. (20)
Morton, Mrs. Joseph L.....3272 W. 42nd St. (8)
Morton, Mrs. Walter P.
3434 E. Fall Creek Blvd., N. Dr. (5)
Moss, Mrs. H. C.....4802 Washington Blvd. (5)
Mouser, Mrs. Robert W.
5555 N. Meridian St. (8)
Muller, Mrs. Lullus P.
5675 Washington Blvd. (20)
Muller, Mrs. Paul F...4050 Washington Blvd. (5)

N

Nagan, Mrs. Robert F.....555 Somerset Dr. (60)
Nay, Mrs. Richard M.....5525 N. Meridian (8)
Need, Mrs. David J.....530 Phaeton Pl. (27)
Need, Mrs. Louis T.....3627 Bluff Rd. (17)
Need, Mrs. R. L.....3905 Byrd Dr. (27)
Nester, Miss Lena Laura
5324 N. Pennsylvania St. (20)
Newman, Mrs. Daniel M.....8080 N. Illinois (60)
Nie, Mrs. Louis W...3525 Delaware Commons (20)
Nohl, Mrs. John M.....5410 Eastridge Dr. (19)
Nolan, Mrs. Robert B...5616 N. Pennsylvania (20)
Norris, Mrs. Max S.....8899 Pickwick Dr. (60)
Nourse, Mrs. Myron H.
8064 Morningside Dr. (40)
Nugent, Mrs. Edwin J...6840 N. Delaware St. (20)
Nurnberger, Mrs. John I.
5215 Washington Blvd. (20)

O

O'Brian, Mrs. Earl J.
4525 Crooked Creek Ridge Rd. (8)
Ochsner, Mrs. Harold C.
4565 Cold Spring Rd. (8)
Offutt, Mrs. Andrew C. 750 N. Campbell Ave. (19)
Olvey, Mrs. Ottis N.....5428 Central Ave. (20)
Otten, Mrs. Claude F..5222 Washington Blvd. (20)
Overley, Mrs. Toner M., Jr...3501 Watson Rd. (5)
Owen, Mrs. John E.....4429 N. Illinois St. (8)
Owens, Mrs. Tracy C.....2823 N. Meridian St. (8)

P

Palmer, Mrs. Robert W....4802 Laurel Circle (26)
Pantzer, Mrs. John G., Jr.....100 Gregg Rd. (60)
Parks, Mrs. Herbert E..1641 N. Priscilla Ave. (18)
Parr, Mrs. Robert L.....4407 Dickson Rd. (26)
Paulissen, Mrs. George T.....741 Markwood (27)
Pauszek, Mrs. Robert B.
2723 Constellation Dr. (29)
Paynter, Mrs. Morris B...115 Roberts Rd. (17)
Peck, Mrs. Franklin B., Jr.
8181 Lincoln Blvd. (40)
Peck, Mrs. Franklin E., Sr.,
5738 Brockton Dr. (20)
Peirce, Mrs. James D.
5027 Washington Blvd. (5)
Peters, Mrs. Robert J. D.
3203 E. Michigan St. (1)
Pickett, Mrs. Robert D...4713 Millersville Rd. (26)
Pierce, Mrs. Emmett....1034 N. Bolton Ave. (19)
Pile, Mrs. Stafford, W., Jr.
9469 Compton Ave. (40)
Pittman, Mrs. John N.....136 E. 43rd St. (5)
Popplewell, Mrs. Arvine G.
141 E. Southport Rd. (27)
Powell, Mrs. Richard C...5359 Hedgerow Dr. (26)
Price, Mrs. Francis W.
550 East Edgewood Ave. (27)
Price, Mrs. Walter S..8430 Washington Blvd. (40)
Pryor, Mrs. Richard C.
5016-F Allisonville Rd. (05)

R

Rabb, Mrs. Frank M.....4619 Dickson Rd. (26)
Raber, Mrs. Robert M.....265 Williams Ct. (60)
Rader, Mrs. George S.....3778 E. 62nd St. (20)
Rafalski, Mrs. Thomas A.
3135 Shady Grove Court (22)
Ragan, Mrs. William D...2157 Wilshire Road (8)
Ramsey, Mrs. Frank B.....1401 W. 52nd St. (8)
Rapp, Mrs. George F.....650 E. 80th St. (40)
Reed, Miss Ann.....4131 N. Meridian (8)
Reed, Mrs. Philip B.....4131 N. Meridian St. (8)
Rees, Mrs. Russel C..1010 Charleston, W. Dr. (19)
Reid, Mrs. Charles A.....6506 Madison Ave. (27)
Reitz, Mrs. Lawrence A.....5250 Roland Dr. (8)
Rice, Mrs. Raymond D.
5241 Washington Blvd. (20)
Rice, Mrs. Raymond M.
7799 E. Holliday Drive (60)
Rice, Mrs. Ronald B...5251 Washington Blvd. (20)
Rich, Mrs. Richard.....5236 Hedgerow Dr. (26)
Robb, Mrs. John A...5151 N. Pennsylvania St. (5)
Robinson, Mrs. Earle, Jr...6045 Woodside Dr. (8)
Rochlin, Mrs. I.....212 E. 71st St. (20)
Roesch, Mrs. Ryland....5439 Shorewood Dr. (20)
Rogers, Mrs. Donald L.
2618 Bluffwood Dr., W. (8)
Roll, Mrs. John W.....6340 Bramshaw (20)
Roller, Mrs. Charles W.....2301 Garfield Dr. (3)
Romberger, Mrs. Floyd T., Jr..10 W. 64th St. (60)
Rosenak, Mrs. Bernard D.
5254 N. Delaware St. (20)

Rosenberg, Mrs. Gabriel J...1821 W. 74th Pl. (60)
Ross, Mrs. Alexander T. 6050 Knyghton Rd. (20)
Rozanski, Mrs. Thomas....6615 Finchley Rd. (50)
Ruddell, Mrs. Keith R..1201 Golden Hill Drive (8)
Rudesill, Mrs. Robert L. 5311 N. Pennsylvania (20)
Rupel, Mrs. Ernest.....5735 N. Meridian (8)
Ruth, Mrs. Martin L.....7 N. Colorado Dr. (1)
Ryan, Mrs. Glen V.
3168 E. Fall Creek Pkwy., N. Dr. (5)

S

Sage, Mrs. Russell A...7531 Morningside Dr. (40)
Sanders, Mrs. Fred....6154 Forest View Dr. (08)
Sappenfield, Mrs. Ralph S.....7102 Dean Rd. (40)
Schechter, Mrs. John S...6333 Glen Coe Dr. (60)
Schlaegel, Mrs. T. F.....4536 Dickson Rd. (26)
Schlegel, Mrs. Donald M.....4042 Cranbrook (40)
Schneider, Mrs. Carl J.....340 N. Kenyon (19)
Schneider, Mrs. Paul A.....4140 N. Graham (26)
Schnute, Mrs. Richard 5460 Broadmoor Plaza (8)
Schuchman, Mrs. Gabriel..5944 Central Ave. (20)
Schuster, Mrs. Dwight.4503 Washington Blvd. (5)
Scofield, Mrs. John B.....9014 Pickwick (60)
Scott, Mrs. Jasper P.....5840 Winthrop Ave. (20)
Scott, Mrs. John R.....7966 N. Illinois St. (20)
Scott, Mrs. Robert P.
5715 N. Pennsylvania St. (20)
Seaman, Mrs. Charles F. 5353 Channing Rd. (26)
Sedam, Mrs. Herbert L. 4819 Millersville Rd. (26)
Sellmer, Mrs. George.....8760 Driftwood (40)
Sexson, Mrs. Hiram T...5455 N. Meridian St. (8)
Shafer, Mrs. Marion R. 6290 Allisonville Rd. (20)
Shapiro, Mrs. Burton J. 525 Woodmere Dr. (60)
Shipley, Mrs. Edward C...5504 Hawthorne Dr. (26)
Shullenberger, Mrs. Wendell A.
4535 Central Ave. (5)
Shumacker, Mrs. Harris B., Jr.
6834 N. Pennsylvania St. (20)
Sicks, Mrs. Okla W.....607 E. 82nd (40)
Siderys, Mrs. Harry
5102 N. Pennsylvania St. (5)
Siersdorfer, Mrs. T. N...5559 W. Morris St. (41)
Sigmond, Mrs. Harvey..3245 N. Pennsylvania (5)
Silver, Mrs. Richard...1114 Frederick Dr. S. (60)
Sims, Mrs. J. Lawrence....3723 N. Gale St. (18)
Sluss, Mrs. David.....3657 Washington Blvd. (5)
Smith, Mrs. Roy Lee..1427 West Stop 11 Rd. (17)
Sobat, Mrs. William.....7424 Bentley Dr. (24)
Solomon, Mrs. Reuben A.
5330 N. Pennsylvania (20)
Soper, Mrs. Hunter A.....R. R. 18, Box 285C (34)
Sovine, Mrs. Joe W.....8182 N. Illinois St. (60)
Spahr, Mrs. John F., Jr.
3014 Green Hills Lane, N. Dr. (22)
Sparks, Mrs. Alan L.
5466 N. Pennsylvania St. (20)
Spears, Mrs. John M.....6910 Shelby (27)
Speckman, Mrs. Glenn H.....5242 Park Ave. (20)
Sputh, Mrs. Carl B., Jr.
5671 Rolling Ridge Rd. (20)
Stansbury, Mrs. Wm. E.....5610 E. 16th St. (18)
Stayton, Mrs. Chester A., Sr...6931 Central (20)
Stephens, Mrs. Donald E.....5555 Broadway (20)
Stoelting, Mrs. V. K.....4706 Laurel Circle (26)
Stone, Mrs. Alvin T.....6295 N. Tuxedo (20)
Stone, Mrs. David.....5453 Ashurst (20)
Storey, Mrs. D. Edmund
808 Forest Blvd., N. Dr. (40)
Storms, Mrs. Roy B.....5041 Central Ave. (5)
Strang, Mrs. Wm. C.....7760 Cree Trail (50)
Streeter, Mrs. Ralph T.....5265 N. Meridian (8)
Stucky, Mrs. Elsworth K.
4528 N. Meridian St. (8)
Stump, Mrs. Loyd K.....6375 Brixton Lane (20)
Suelzer, Mrs. John.....4538 Sylvan Rd. (8)
Suess, Mrs. Robert E.....6926 Johnson Rd. (20)
Summerlin, Mrs. Jack D.
6375 Avalon Lane, E. Dr. (20)
Sutton, Mrs. William E.....5807 Brockton Dr. (20)
Swan, Mrs. John R.....320 Arden Dr. (20)
Szynal, Mrs. John S....4705 Andover Square (26)

T

Talbott, Mrs. Dan E..6470 N. Michigan Rd. (68)
Tanner, Mrs. Henry S.
4461 N. Pennsylvania St. (5)
Taube, Mrs. Jack I...4353 N. Pennsylvania St. (5)
Taylor, Mrs. Clifford C.
3720 Briarwood Dr., E. (40)
Taylor, Mrs. Frederic W.....40 E. 43rd St. (5)
Teague, Mrs. Frank W.....555 W. Pine Dr. (60)
Tether, Mrs. J. Edward.....4839 E. 56th St. (20)
Tharpe, Mrs. Ray G.....6161 Sunset Lane (8)
Thatcher, Mrs. Hugh K., Jr...408 E. 45th St. (5)
Thoman, Mrs. Rex L.....7338 N. Chester (40)
Thomas, Mrs. Charles R.
7029 Wayland Dr., R. R. 5, Box 456A (39)
Thomas, Mrs. Fred A.....5827 Broadway (20)
Thomas, Mrs. Lowell I.....28 W. Hampton Dr. (8)
Thomas, Mrs. Michael H.
3800 W. Michigan, Apt. 311 (22)
Thomas, Mrs. Morris E.
6215 Spring Mill Rd. (60)
Thompson, Mrs. John V.....7899 Ridge Rd. (40)
Thompson, Mrs. Paul D.
6605 Eden Roc Crest (20)
Thompson, Mrs. Wayne.6519 Creekside Lane (20)
Throop, Mrs. Frank B..4134 Sunmeadow Lane (8)
Thurston, Mrs. A. L.....4078 Central Ave. (5)
Tinsley, Mrs. Walter B., Sr. 5638 Broadway (20)
Tinsley, Mrs. Walter B., Jr.
4505 Melbourne Rd. (8)
Tischer, Mrs. E. Paul....5383 Channing Rd. (26)
Tondra, Mrs. John M.....4511 Broadway (5)
Torrella, Mrs. Jose A.....5721 W. 18th St. (24)
Trudgen, Mrs. Spencer F...6031 Wexford Rd. (50)
Trusler, Mrs. Harold M.
6150 N. Meridian St. (8)
Trusler, Mrs. H. Marshall...4360 Swanson Dr. (8)
Tuchman, Mrs. Joseph H.
8515 Springview Dr. (60)
Tucker, Mrs. Warren S.
5338 N. Pennsylvania St. (20)
Tyner, Mrs. Harlan H.....3663 N. Delaware (5)

U-V

Ullom, Mrs. Ralph.....520 Wayside Dr. (60)
Van Meter, Mrs. C. Powell
4102 Marrison Place (26)
Van Tassel, Mrs. Charles J., Jr.
5832 Washington Blvd., (20)
Vollrath, Mrs. Victor J.
7980 N. Pennsylvania St. (40)
Von Der Haar, Mrs. Gerard
1109 N. Mitchner St. (19)
Vore, Mrs. Robert E.....3710 Cheviot Place (5)

W

Wainscott, Mrs. Clinton S.
5332 Channing Road (26)
Waldo, Mrs. J. Thayer....420 W. 64th St. (60)
Walker, Mrs. George.....7950 Sargent Rd. (56)
Walther, Mrs. Joseph E.
4266 N. Pennsylvania St. (5)
Walton, Mrs. William M.
8007 N. Illinois St. (60)
Warneke, Mrs. Charles.....2533 Ryan Dr. (20)
Warriner, Mrs. James B...990 N. Bolton Ave. (19)
Warvel, Mrs. John H.....1101 W. 91st St. (60)
Washington, Mrs. Wilbert
5430 Grandview Dr. (8)
West, Mrs. Joseph L.....2110 W. 38th St. (8)
Westfall, Mrs. B. Kemper, Jr.
4001 N. Meridian St. (8)
Wheeler, Mrs. David E.
6100 Old Shelbyville Rd. (27)
White, Mrs. Donald J..7218 Sylvan Ridge Rd. (40)

White, Mrs. Douglas H., Jr.
7405 Frederick Dr. East (60)
White, Mrs. Gene A.....5725 Roxbury Ct. (26)
White, Mrs. John B.....5850 High Fall Rd. (26)
Wilkens, Mrs. Irvin W.
4820 E. Pleasant Run Pkwy., N. Dr. (1)
Williams, Mrs. C. L...6268-G. Adams Blvd. E. (20)
Williams, Mrs. Harold.5536 Overbrook Circle (26)
Williams, Mrs. Howard S., Jr.
3824 N. Delaware St. (05)
Williams, Mrs. Hugh L...6231 Knyghton Rd. (20)
Wirey, Mrs. Harold R...2949 E. Hanna Ave. (27)
Wise, Mrs. William R.....1908 Orlando (8)
Witham, Mrs. Robert.....5811 Ravine Rd. (20)
Wolfram, Mrs. Don J.
5716 N. Pennsylvania St. (20)
Wood, Mrs. Donald E...6467 W. Holliday Dr. (20)
Woolling, Mrs. Kenneth R..5751 Central Ave. (20)
Wray, Mrs. James B.
4707 Briar Patch Court (50)
Wrege, Mrs. Malcolm..5411 Shorewood Dr. (20)
Wright, Mrs. J. Wm., Jr.
4220 Knollton Rd. (8)
Wunsch, Mrs. Charles M.
6941 Washington Blvd. (20)
Wyttenbach, Mrs. John E..5808 Eastview Ct. (50)

Y-Z

Yacko, Mrs. Michael L.
5341 N. Channing Rd. (26)
Yingling, Mrs. Robert J..5322 Hedgerow Dr. (26)
Young, Mrs. John M.
4535 Marcy Lane, No. 261 (5)
Zell, Mrs. Evertson H...4747 Millersville Rd. (26)

Zerfas, Mrs. Charles P. A.
R. R. 15, Box-233 Z, Acton (46259)
Bechtol, Mrs. L. D.
6330 E. 116th St. Noblesville (46060)
Dyken, Mrs. Mark L.
R. R. 2, Box 169A, Zionsville (46077)
Gillim, Mrs. Parvin D.
Bloor Lane, R. R. 2, Zionsville (46077)
Kalsbeck, Mrs. John E...R. R. 2, Box 168, Zionsville (46077)
Overley, Mrs. Ross
Hunt Club Rd., Zionsville (46077)
Pennington, Mrs. Walter E.
Indiana Baptist Home, R. R. 1, Zionsville (46077)
Myers, Mrs. Roy V.....7710 Beta Circle, West Palm Beach, Fla. (33406)

MARSHALL-STARKE COUNTY

Hampton, Mrs. James N...R. R. 2, Argos (46501)
Bowen, Mrs. Otis R...304 N. Center St., Bremen (46506)
Burket, Mrs. Cecil R.....121 E. Grant St., Bremen (46506)
Stine, Mrs. Marshall.420 Shumaker Dr., Bremen (46506)
Faulkner, Mrs. D. J.
W. Terrace Pky., Culver (46511)
Hippensteel, Mrs. Russell R.
936 South Shore Rd., Culver (46511)
Leinbach, Mrs. Earl R...206 Davis, Hamlet (46532)
Rosero, Mrs. Geo.
217 E. Main St. Kewanna (46939)

Knox

(*Zip Code* 46534)

Henry, Mrs. Howard J.....R. R. 1
McClure, Mrs. Clark.....R. R. 1
Palmer, Mrs. Allen.....303 E. Lake St.

Plymouth

(*Zip Code* 46563)

Coursey, Mrs. James.....R. R. 2, Box 282A
France, Mrs. Lloyd C.....R. R. 2
Guild, Mrs. Kent.....R. R. 5
Rimel, Mrs. James F.....909 Bayless
Robertson, Mrs. James S.....1081 Highland Ct.

MONTGOMERY COUNTY

Crawfordsville

(*Zip Code* 47933)

Cooksey, Mrs. Thomas L.....205 Marshall
Daugherty, Mrs. Fred N.....415 W. Main St.
Eggers, Mrs. Richard R.....203 S. West St.
Haller, Mrs. Thomas C.....38 Delmar Dr.
Humphreys, Mrs. John W.....1309 Durham Dr.
Kirtley, Mrs. James M.....615 Thornwood Rd.
Lingeman, Mrs. Byron N.....203 Wallace Ave.
Millis, Mrs. Samuel C.....201 Wallace Ave.
Peacock, Mrs. Norman F.....111 Wallace Ave.
Pierson, Mrs. Robert H.....305 E. Main St.
Richards, Mrs. Edgar E.....Danville Rd., R. R.
Shannon, Mrs. Wesley E.....6 Locust Hill Dr.
Sharp, Mrs. John L.....1113 Durham Dr.
Stephens, Mrs. James P.....1407 Durham Dr.
Viray, Mrs. V. G.....809 North Dr.

Smith, Mrs. Byron J.....Kingman (47952)
Blix, Mrs. Fred.....Ladoga (47954)
Kindell, Mrs. Hurschell D..New Richmond (47967)
Rusk, Mrs. Hubert M.....Box 36, Wallace (47988)
Johnson, Mrs. Dale.....Waynetown (47990)
Thompson, Mrs. Claude N...Waynetown (47990)

MORGAN COUNTY

Martinsville

(*Zip Code* 46151)

Brubeck, Mrs. Robert.....R. R. 6, Box 419C
Drake, Mrs. Ellery T.....Box 110
Eisenberg, Mrs. David....Box 310, Sunnyside Dr.
Gray, Mrs. Leon.....589 Valley Drive N.
Miller, Mrs. Robert J.....R. R. 3, Box 214A
Ostheimer, Mrs. George.....700 Valley Dr.
Pitkin, Mrs. McKendree C...440 E. Washington St.
Turner, Mrs. Maurice A.....490 East Pike St.
Van Wienen, Mrs. John.....439 N. Jefferson
Willan, Mrs. Horace R.....109 S. Jefferson
Winter, Mrs. William.....415 N. Jefferson

Mooresville

(*Zip Code* 46158)

Comer, Mrs. Charles W.....R. R. 2
Comer, Mrs. Kenneth E.....R. R. 2

Murphy, Mrs. M. G.....Box 167, Morgantown (46160)
Wilson, Mrs. Oliver R.
Box 65, R. R. 3, Morgantown (46160)

NEWTON COUNTY

Schoonveld, Mrs. Arthur.....Brook (47922)
Parker, Mrs. John.....Goodland (47948)
Kresler, Mrs. L. E.....301 N. Sixth St., Kentland (47951)
Guzman, Mrs. Marc.....Morocco (47963)

NOBLE-LaGRANGE COUNTIES

Bowman, Mrs. Charles
Meadow Lanes, Kendallville (46755)
Bryan, Mrs. Robert
Kimmells, South Shore, Kendallville (46755)
Greenlee, Mrs. Joseph A., Jr.
439 Water St., Kendallville (46755)

Gutstein, Mrs. Richard R.
120 Diamond, Kendallville (46755)
Lawson, Mrs. I. H.
518 S. Main St., Kendallville (46755)
Messer, Mrs. Frank W.
328 S. Oak St., Kendallville (46755)
Seybert, Mrs. Joseph D.
117 S. Riley, Kendallville (46755)
Slough, Mrs. Thomas
703 E. Mitchell St., Kendallville (46755)
Williams, Mrs. H. O.
735 Mitchell St., Kendallville (46755)
Hooker, Mrs. Donald J...406 S. Main St., Ligonier (46767)
Stone, Mrs. Robert C.....501 S. Main St., Ligonier (46767)
Stultz, Mrs. Quentin F...3 Hawthorn Dr., Ligonier (46767)
Fipp, Mrs. A. L.....Rome City (46784)

OWEN-MONROE COUNTIES

Bloomington

(*Zip Code* 47401 *unless otherwise indicated*)

Austin, Mrs. Rayburn C.....114 S. Grant (03)
Baxter, Mrs. Neal E.....515 Hawthorne Drive
Booze, Mrs. James.....R.R. 3, Fieldcrest
Borland, Mrs. Raymond M...R. R. 3, Box 51 (03)
Byrne, Mrs. Louis.....Cameron Ave., R. R. 3
Creek, Mrs. J. A.....Sare Road
Emery, Mrs. Charles B., Jr.....1100 S. High St.
Estes, Mrs. Ambrose.....701 Highland Ave.
Fowler, Mrs. R. Ross....R. 3, Pleasant Ridge Rd.
Geiger, Mrs. Dillon.....1704 N. Fee Lane
Hammer, Mrs. J. William.....701 S. Jordan
Hardtke, Mrs. Eldred F.....1400 Pickwick Place
Hibner, Mrs. Kermit Q.....1306 Pickwick Pl.
Holland, Mrs. Philip T.....1001 S. Jordan
Holtzman, Mrs. Paul W.....1203 Pickwick Place
Hrisomalos, Mrs. Frank.....228 S. Hillsdale
Karsell, Mrs. Philip.....700. S. Highland
Ley, Mrs. Glen D.....4425 Blackstone Court
McClary, Mrs. Charles.....1411 Sare Rd.
McIntire, Mrs. C. R.....2424 Dunn
Manifold, Mrs. Harold.....1310 Nancy
Marchant, Mrs. Clarence.....350 S. College
Mather, Mrs. Glenn.....1215 S. Brooks Dr.
Middleton, Mrs. Thomas.....210 Gilbert
Milan, Mrs. Joseph F.....2207 Govenanter Dr.
Miller, Mrs. John M.....1402 Winfield Rd.
Morford, Mrs. Guy....Knightridge Manor, Apt. 36
Owens, Mrs. Walter.....4531 Sheffield Ct.
Poolitsan, Mrs. George.....1217 E. First St.
Ramsey, Mrs. Hugh.....619 E. First
Ratts, Mrs. Larry.....1909 Viva Drive
Rieger, Mrs. I. Taylor.....654 Woodcrest Dr.
Robinson, Mrs. Robert.....2708 Browncliff
Rogers, Mrs. Otto F.....804 E. 8th
Rollins, Mrs. Thomas.....815 S. Rose (03)
Ross, Mrs. James.....R. R. 1, Box 55A
Ruff, Mrs. Jerard.....2303 Fritz Dr.
Schell, Mrs. H. Richard.....1401 Maxwell Lane
Schilling, Mrs. Richard.....1708 S. High
Schaffer, Mrs. James J.....4227 Penn Ct.
Seagle, Mrs. W. Courtney.....4236 Cambridge
Sibbitt, Mrs. Joseph W.....818 Sheridan
Smith, Mrs. Herschel S.....200 Glendora Dr.
Stangle, Mrs. Wm. J.....2305 E. Second
Steele, Mrs. Lowell.....4417 Blackstone Ct.
Stouder, Mrs. Charles E.
R. R. F, Forrest Park Heights
Surian, Mrs. Michael.....100 N. Park Ridge Rd.
Topolgus, Mrs. James N.....1015 Atwater Ave.
Wass, Mrs. Robert.....313 Reisner
Way, Mrs. James A.....1037 Maxwell

Brown, Mrs. M. S.
348 N. Washington, Spencer (47060)

PARKE-VERMILLION COUNTIES

Clinton

(*Zip Code* 47842)

Herzberg, Mrs. Milton.....545 S. Fourth St.
Kercheval, Mrs. J. M.....452 S. 5th
Somerville, Mrs. John W...P. O. Box 264, R. R. 2

Webb, Mrs. L. C.....Dana (47847)

Rockville

(*Zip Code* 47872)

Beebe, Mrs. Milton O., Jr.....9 Valley Dr.
Bloomer, Mrs. Richard S.....502 W. York St.
Minich, Mrs. William G.....617 Woodland Dr
Swaim, Mrs. J. Franklin.....Rockville

PERRY-SPENCER COUNTIES

Bush, Mrs. Hargis R.....Sixth St., Cannelton (47520)
Gilbert, Mrs. Robert G.
411 E. Seventh St., Cannelton (47520)
Glackman, Mrs. John C. 207 Center St., Rockport (47635)
Snyder, Mrs. Earl.....Troy (47588)

Tell City

(*Zip Code* 47586)

Herr, Mrs. William J.....Boyd Road
James, Mrs. Nicholas A.....740 Ninth St.
Lally, Mrs. Bernard.....918 Main St.
Lohoff, Mrs. Lewis C.....425 10th St.
Neifert, Mrs. Noel L.....1118 Blum St.
Ress, Mrs. Gene E.....1530 13th St.
Smith, Mrs. Fred, Jr.....Smith Hill
Ward, Mrs. Robert A.....1407 Twelfth St.

PORTER COUNTY

Hoham, Mrs. Frederick D...Box 128, Ogden Dunes, Portage (46368)
Lands, Mrs. Robert M.
Saturn Lane, Portage (46368)

Chesterton

(*Zip Code* 46304)

Forchetti, Mrs. John A.....106 Wilson Ave.
Hall, Mrs. Thomas.....16 Ridge Dr., Dune Acres
Robertson, Mrs. W. C.....600 E. Morgan

Valparaiso

(*Zip Code* 46383)

Brown, Mrs. J. C.....1808 Napoleon
Carlson, Mrs. M. R.....2206 Vine St.
Davis, Mrs. Carl M.....R. R.6
DeGrazia, Mrs. E. J.....410 Washington St.
Evans, Mrs. Daniel R. ....1306 Forest Park Ave.
Frank, Mrs. John R.....303 Indiana Ave.
Gold, Mrs. Marvin E.....1407 Washington St.
Kilmer, Mrs. Warren.....305 Spectacle Dr.
Makovsky, Mrs. Theodore..1807 Beulah Vista Dr.
O'Neill, Mrs. Martin J.....301 Washington St.
Sacks, Mrs. Leonard Z.....563 Ravine Dr.
Sturdevant, Mrs. Frank M.....1302 Wood St.
Vietzke, Mrs. Paul C. F.....1302 Summit Pl.
Wu, Mrs. Stewart.....102 Mayfield Ave.

PUTNAM COUNTY

Veach, Mrs. Richard L.....Bainbridge (46105)
Ellett, Mrs. John, Jr...Box 126, Coatesville (46121)
Jacobs, Mrs. Rene M...Box 153, Coatesville (46121)

Greencastle

(*Zip Code* 46135)

Dettloff, Mrs. Frederick R.....300 Highfall Ave.
Haggerty, Mrs. Fred.....406 Melrose Ave.

Johnson, Mrs. James B.....314 Highfall Ave.
Lett, Mrs. James.....335 Greenwood
Roof, Mrs. Roger.....713 Highridge
Schauwecker, Mrs. Cleon M.....613 Ridge Ave.
Smith, Mrs. A. Wilson.....R. F. D. 2
Steele, Mrs. Dick J.....207 Northwood Blvd.
Tipton, Mrs. William R.....103 Northwood Blvd.
Wiseman, Mrs. V. Earle.....6 Durham Ave.

RANDOLPH COUNTY

Farmland
(*Zip Code* 47340)

Nixon, Mrs. Byron.....312 N. Main
White, Mrs. Harvey E.....200 S. Main

Shallenberger, Mrs. H. R.....Modoc (47358)
Potter, Mrs. Richard M.
120 N. Walnut, Ridgeville (47380)

Union City
(*Zip Code* 47390)

Chambers, Mrs. Carol R.....1000 N. Columbia St.
Chambers, Mrs. Leroy B.....800 N. Columbia St.
Landon, Mrs. David J.....R. R. 2, Box 75
Phipps, Mrs. Leland K.....R. R. 1, Box 63A
Reid, Mrs. Robert W.....706 W. Division
Wagoner, Mrs. B. D.....409 N. Columbia St.

Winchester
(*Zip Code* 47394)

Dininger, Mrs. William S.....303 S. Main St.
Engle, Mrs. Russell B.....R. R. 2
Painter, Mrs. Lowell W.....507 S. Main St.
Slick, Mrs. C. R.....512 S. Oak St.
Sparks, Mrs. Paul W.....R. R. 2

RUSH COUNTY

McNabb, Mrs. George B.....Carthage (46115)
Smith, Mrs. Stephen D.
308 N. Washington, Knightstown (46148)
Worth, Mrs. C. Willard.....Milroy (46156)

Rushville
(*Zip Code* 46173)

Atkins, Mrs. C. C.....510 N. Perkins
Corpe, Mrs. Kenneth F.....R. R. 4
Ellis, Mrs. Davis W.....1102 Sugar Hill Dr.
Green, Mrs. Frank H.....516 N. Morgan
McKee, Mrs. Harry G.....1109 N. Arthur St.
McKee, Mrs. Harry.....R. R. 6
Norris, Mrs. Marvin.....1107 N. Main St.
Shanks, Mrs. Roy E.....1110 N. Morgan

ST. JOSEPH COUNTY

Houser, Mrs. D. S.
24751 N. Riley Rd., North Liberty (46554)

Mishawaka
(*Zip Code* 46544)

Barone, Mrs. C. V.....59053 Bremen Highway
Chamberlain, Mrs. Donald S...54712 Merrifield Dr.
Colosey, Mrs. Frederick J.....54720 Merrifield
Ganser, Mrs. Richard A.....1020 Wilson Blvd.
Gerig, Mrs. E. Lavern.....713 W. 11th St.
Orr, Mrs. W. Robert.....1335 Prospect Dr.
Pairitz, Mrs. Frank D.....59315 Clover Rd.
Reed, Mrs. Robert.....903 Homewood
Roberts, Mrs. Billy J.....15605 Hearthstone Dr.
Rosenwasser, Mrs. Jacob.....834 Lincoln Way E.
Schaphorst, Mrs. Richard A...514 Lincoln Way E.
Spalding, Mrs. David L.....926 Wilson Blvd.
Stringer, Mrs. D. D.....1035 Lincoln Way E.
Templeton, Mrs. Ames R.....516 Clay
Walters, Mrs. Charles E.....16166 Ireland Rd.
Whitlock, Mrs. Merle E.....2118 Linden
Wurster, Mrs. H. C.....221 E. Third St.
Zimmer, Mrs. Henry J.....333 Edgewater Dr.

Spenner, Mrs. Raymond W.
R. R. 3, Diamond Lake, Cassopolis, Mich. (49031)

South Bend
(*Zip Code* 466 *plus zone number*)

A

Acker, Mrs. Robert B...103 S. Ironwood Dr. (15)
Arisman, Mrs. R. K.....125 W. Marion St. (01)

B

Baran, Mrs. Charles..1808 E. Jefferson Blvd. (17)
Bartsch, Mrs. Harvey L..61397 S. Miami Rd. (14)
Beach, Mrs. Norman.....1617 Inwood Rd. (14)
Bechtold, Mrs. Samuel E.....313 Pendle St. (37)
Bell, Mrs. H. D.....1357 E. Champeau St. (17)
Bennett, Mrs. Jene R..1826 E. Jefferson Blvd. (17)
Berke, Mrs. Robert D..1420 E. Jefferson Blvd. (17)
Biasini, Mrs. Ben A.....19585 Glendale Rd. (37)
Bickel, Mrs. David A...1335 E. Wayne St. N. (15)
Birmingham, Mrs. P. J... 61490 Meadowlark Lane (14)
Bixler, Mrs. Louis C.....1817 Portage Ave. (16)
Bodnar, Mrs. Leslie M.....1843 Portage Ave. (16)
Bogan, Mrs. Wm. C.....1512 Hass Dr. (35)
Borough, Mrs. Lester D.....816 E. Woodside (14)
Brechtl, Mrs. H. J.....2305 E. Washington (15)
Buchanan, Mrs. Wallace D. 1326 E. Wayne St., N. (15)
Buechner, Mrs. Fred W..603 W. Marion St. (01)
Buslee, Mrs. Roger M...524 S. Twyckenham (15)
Butts, Mrs. Milton A.....744 N. Jacobs St. (17)

C

Cassady, Mrs. John R....2225 Riverside Dr. (16)
Cassady, Mrs. J. Vernal....2216 E. Madison (15)
Chamblee, Mrs. Roland W.....53287 Ironwood Rd. (35)
Clark, Mrs. William H.....1227 Garland Rd. (14)
Clark, Mrs. Stanley A.
1242 E. Jefferson Blvd. (17)
Colip, Mrs. George D.....260 David St. (37)
Cook, Mrs. Gordon C...1620 Southwood Ave. (15)
Cox, Mrs. A. Charles....17430 Darden Rd. (37)
Custer, Mrs. Edward W..52383 N. Laurel Rd. (37)

D

Davis, Mrs. Edward A.....52820 Kenilworth Rd. (37)
Denham, Mrs. Robert H., Jr..1515 E. Colfax (17)
Devetski, Mrs. Robert L....1105 Hudson Ave. (16)
DeVoe, Mrs. K. R.....52978 Highland Dr. (35)
Dietl, Mrs. Ernest L...3318 Springbrook Dr. (14)
Dingley, Mrs. Albert, Jr.....1309 E. Wayne St. S. (15)
Dodd, Mrs. Robert D.....1510 Tudor Lane (14)
Dolezal, Mrs. Bernard J....425 W. North Shore Dr. (16)
Donnelly, Mrs. Everett F. 1246 E. Jefferson Blvd. (17)
Dunlap, Mrs. D. Logan....123 W. North Shore Dr. (17)

E

Eades, Mrs. R. Charles
1616 E. Jefferson Blvd. (17)
Edwards, Mrs. Bernard..1134 Ridgedale Rd. (14)
Egan, Mrs. Sherman L.....944 Riverside Dr. (16)
Engel, Mrs. Howard R..1845 Ridgewood Circle (17)
English, Mrs. J. Paul.3116 Robinhood Lane (14)
Erickson, Mrs. G. Walter....3012 Robinhood Lane (14)
Erickson, Mrs. Lester G....1212 E. Woodside (14)

F

Feferman, Mrs. Martin E..125 S. Esther St. (17)
Feldman, Mrs. Max.....1310 E. Fairview (14)
Filipek, Mrs. Walter J..2513 Lincoln Way W. (28)
Firestein, Mrs. Ben Z...125 W. Marion St. (01)
Firestein, Mrs. Ray....502 N. Ironwood Dr. (15)
Fish, Mrs. Edson C.....19054 Summers Dr. (37)
Foley, Mrs. Hansel.....1314 Leeper (17)
Forrest, Mrs. O. Norman..1138 E. Wayne St. (17)
Frank, Mrs. Herbert....2616 S. Twyckenham Dr. (14)
Frank, Mrs. L. L., Jr.....1750 N. Wilbur (28)
Frank, Mrs. L. L., Sr.
534 N. Lafayette Blvd. (01)
Frash, Mrs. D. W., Jr.....2500 Topsfield Rd. (14)
Frey, Mrs. William B.....1714 E. Bader (17)
Friedman, Mrs. Morris S...1617 E. Jefferson Blvd. (17)

G

Gaffney, Mrs. Raymond A...3215 York Road (14)
Ganser, Mrs. Ralph.....101 N. Conestoga (15)
Gates, Mrs. George E...411 W. North Shore Dr. (17)
Gilman, Mrs. Marcus M...1925 E. Jefferson Blvd. (17)
Graf, Mrs. John P.....53260 Placid Dr. (37)
Green, Mrs. G. Richard..1515 E. Wayne St. (15)
Green, Mrs. George F.....754 Country Club Lane (15)
Green, Mrs. Norval E..1726 E. LaSalle Ave. (17)

H

Haley, Mrs. George M.
1131 E. Jefferson Blvd. (17)
Hall, Mrs. James.....1718 E. Jefferson Blvd. (17)
Hamilton, Mrs. Charles O.
1418 E. Washington Ave. (17)
Haugseth, Mrs. Ellsworth K...820 N. Ironwood Dr. (15)
Hawkins, Mrs. Glen E.....17280 Parker Ave. (35)
Helmer, Mrs. John..315 W. North Shore Dr. (17)
Hildebrand, Mrs. J. O...1637 Southbrook Dr. (14)
Hill, Mrs. Theodore.....107 N. Eddy St. (17)
Hill, Mrs. Wallace C.....248 S. Hawthorne (17)
Horvath, Mrs. George A.
18825 Cherokee Lane (37)
Hyde, Mrs. Carroll C.....1521 E. Colfax Ave. (17)

J-K

Jankowski, Mrs. Ernest B...2230 Ribourde (28)
Johns, Mrs. N. C.....52605 Brooktrail Dr. (37)
Kamm, Mrs. Bernard A..125 W. Marion St. (01)
Karn, Mrs. John W.....1535 Wall St. (15)
Kieffer, Mrs. William J...1113 E. Wayne St. (17)
Knode, Mrs. Kenneth T.
25609 Country Club Dr. (19)
Krueger, Mrs. John E.....620 E. Peashway (17)
Kuhn, Mrs. Frederick L.....1725 Inwood Dr. (18)

L

Lamb, Mrs. Leonard.....302 S. Sunnyside (15)
Lane, Mrs. William....1301 N. Michigan St. (17)
Lester, Mrs. Vern L.
2500 Topsfield Rd. #205 (14)
Levatin, Mrs. Bernard I..1814 Churchill Dr. (17)
Levkoff, Mrs. Abner H...1815 E. Jefferson Blvd. (17)
Lionberger, Mrs. John R. 1419 E. Jefferson Blvd. (17)
Liss, Mrs. Emanuel C.....1683 N. Riverside Dr., Apt. B (16)
Lockhart, Mrs. Philip B...1611 Wayne St. E. (15)

M

Macias, Mrs. Rafael..1330 E. Jefferson Blvd. (17)
Macri, Mrs. Paul A.....1601 E. Cedar (17)
Mahank, Mrs. Camiel C.
747 Country Club Lane (15)
Martin, Mrs. Charles...2007 Northside Blvd. (15)
Marquis, Mrs. Gordon.....329 Wakewa (17)
Martinov, Mrs. William E.....1421 Wall St. (15)
Mason, Mrs. Bernard A.....2719 Marine St. (14)
Mauzy, Mrs. Merritt C.....1740 Hass Dr. (35)
MacLeod, Mrs. John K.....930 Simon Court (15)
McCraley, Mrs. William J.....1737 Belmont Ave. (15)
McMeel, Mrs. James.....1138 Whitehall Dr. (15)
McQuade, Mrs. John....52361 Portage Hwy. (28)
Metcalfe, Mrs. Grant E.
101 S. Conestoga Lane (17)
Mott, Mrs. C. A.....2733 Lincoln Way West (28)
Mueller, Mrs. Hilbert M...3525 Windingwood Dr. (15)
Myers, Mrs. Philip R....1147 Cleveland Ave. (28)

N-O

Neher, Mrs. John L.....17371 Cleveland Rd. (35)
Nelson, Mrs. Raymond E.....1909 E. Madison St. (17)
Nelson, Mrs. Robert.....104 S. Hawthorne (17)
Olson, Mrs. Donald T.....1806 Cedar St. (17)
Olson, Mrs. Kenneth L.....1228 E. Woodside Ave. (14)
Oren, Mrs. William.....1149 E. Belmont (15)

P

Parsons, Mrs. Robert....1464 Ridgedale Rd. (14)
Pascuzzi, Mrs. Chris A...1930 Dorwood Dr. (17)
Pauszek, Mrs. Thomas B...916 Riverside Dr. (16)
Petrass, Mrs. Andrew....22027 Liberty Highway (19)
Phelps, Mrs. Stephen R.....1331 Sunnymede Ave. (15)
Plain, Mrs. George.....17836 Ponader Dr. (35)
Plain, Mrs. George L.....1857 N. College St. (28)
Pyle, Mrs. H. Dale....115 N. Sunnyside Ave. (17)

R

Richards, Mrs. Dean.....1210 N. Garland St. (14)
Rigaux, Mrs. Armand.....1622 E. Madison (17)
Rosenheimer, Mrs. George M...1425 E. Woodside (14)
Rubens, Mrs. Eli.....1240 E. Irvington (14)

S

Sanderson, Mrs. Robert B...238 S. Hawthorne Dr. (17)
Sandock, Mrs. Louis F.....235 S. Esther St. (17)
Sandoz, Mrs. Harry H..239 S. Hawthorne Dr. (17)
Schiller, Mrs. Herbert A...1813 E. Cedar St. (17)
Schlossberg, Mrs. V. E.....2719 Corby Blvd. (17)
Scott, Mrs. Frank M.....1220 E. Woodside (14)
Selby, Mrs. K. E.....1327 E. Wayne St. N. (15)
Sensenich, Mrs. R. L.....128 S. Scott St. (25)
Sellers, Mrs. Francis....814 Oakridge Dr. (17)
Sharp, Mrs. Merle C...17780 Waxwing Lane (35)
Shriber, Mrs. Wm. H.....1512 E. Madison (17)
Shriner, Mrs. Richard....53362 Juniper Rd. (37)
Sisson, Mrs. Norvel D...1614 Oak Park Dr. (17)
Skillern, Mrs. Scott....1553 Southbrook Dr. (14)
Slominski, Mrs. Harry H...1862 College St. (28)
Sobol, Mrs. Zbigniew.....19072 Summers Dr. (37)
Stiver, Mrs. Dan D.....1127 E. Wayne St. N. (15)
Stogdill, Mrs. William J.....520 N. Coquillard Dr. (17)
Stratigos, Mrs. Joseph S...527 N. Lafayette (01)
Sweeney, Mrs. Robert.....1203 Sunnymede (15)

T

Thompson, Mrs. John M..1618 E. Cedar St. (17)
Thornton, Mrs. M. J.....125 W. Marion St. (01)
Tirman, Mrs. Wallace S.....1224 E. Wayne St., N. (15)
Troyer, Mrs. Marlin.....17700 Ireland Rd. (14)

V-W-Z

Van Fleit, Mrs. W. E.....1617 E. Cedar St. (17)
Weiss, Mrs. Eugene
1605 E. Washington Ave. (17)
White, Mrs. Donald G.....1721 E. Altgeld (14)

Wilson, Mrs. James L...1161 N. Riverside Dr. (16)
Wilson, Mrs. James M.....1507 E. Wayne (15)
Wind, Mrs. Joseph.....1629 Hass Dr. (35)
Zeiger, Mrs. Irvin L.....1205 E. Irvington (14)

SHELBY COUNTY

Davis, Mrs. John A.....Flat Rock (47234)
Nigh, Mrs. R. M.....Fairland (46126)

Shelbyville

(*Zip Code* 46176)

Arata, Mrs. Lucian A.....327 W. Broadway
Dalton, Mrs. Wilson L.....1712 Culbertson
Deupree, Mrs. William D.....50 W. Mechanic St.
Gehres, Mrs. Robert W.....610 Shelby St.
Inlow, Mrs. Paul M.....53 W. Washington St.
Inlow, Mrs. Robert.....424 Lockerbie
Inlow, Mrs. W. D.....Spring Hill Rd.
McFadden, Miss Marian.....28 W. Mechanic St.
Moheban, Mrs. Joseph.....Spring Hill Rd.
Paz, Mrs. Luis.....526 E. McKay Rd.
Phares, Miss Frances.....408 S. Harrison
Richard, Mrs. Norman F.....Country Club Heights
Scott, Mrs. V. Brown.....R. R. 2, N. Riley Hwy.
Silbert, Mrs. David B.....1100 Fairfield Dr.
Spindler, Mrs. Robert D.....165 W. Mechanic St.
Tindall, Mrs. William R.....616 S. Harrison
Tower, Mrs. James H., Jr...239 W. Washington St.
Whitcomb, Mrs. Roger F.....218 W. Broadway

TIPPECANOE COUNTY

Lafayette

(*Zip Code* 479 *plus zone number*).

Babb, Mrs. Forrest J.....2106 S. Ninth St. (05)
Bayley, Mrs. William E.....303 S. Ninth St. (01)
Buhrmester, Mrs. Harry C...Freiberger Lane (05)
Carpenter, Mrs. James B.....R. R. 5 (01)
DuBois, Mrs. Ramon B...519 Calvert Lane (05)
Flack, Mrs. Russell A.....3600 Cypress Lane (05)
Frey, Mrs. Harley H., Jr...505 Calvert Lane (05)
Fritch, Mrs. John M.....1619 S. Fifth St. (05)
Harvey, Mrs. Bennett B...2908 Beverly Lane (04)
Horswell, Mrs. Richard R...2312 Dakota Dr. (05)
Johnson, Mrs. Herbert S.....712 Cherokee (05)
Karberg, Mrs. Richard J.....1212 El Prado (05)
Klepinger, Mrs. Harry E.....909 N. 21st St. (04)
Kohne, Mrs. Robert W.....3504 Cedar Lane (05)
Landis, Mrs. Charles B.....505 S. 17th St. (01)
Lempke, Mrs. Lloyd W.....29 Stayman Ct. (05)
McAdams, Mrs. Hugh B...2110 Birch Lane (05)
McKinley, Mrs. Joseph..610 Lingle Terrace (01)
McPherson, Mrs. Richard C.....30 Thise Court (05)
Miller, Mrs. William J.....2321 Manitoba Dr. (05)
Neumann, Mrs. Kenneth O..1410 S. 18th St. (05)
Pickerill, Mrs. James M.....Rt. 12, Box 231-A
Ralston, Mrs. Marc A.....1613 Dearborn St. (02)
Ratcliff, Mrs. Frank W.....1000 Wea Ave. (05)
Scheeres, Mrs. Jacob W.....1619 Potomac (05)
Sholty, Mrs. William M..Shadeland Farm Rd. (04)
Smith, Mrs. Lowell C.....615 Lingle (01)
Stolz, Mrs. Thomas.....R. R. 1, (06)
Trout, Mrs. Carl J.....800 State St. (01)
Underwood, Mrs. George M.....2540 Lafayette Dr. (05)
Vermilya, Mrs. Robert W..R. R. 5, Cedar Bluff Rd. (01)
Washburn, Mrs. Mary.....918 Rochester St. (05)
Weida, Mrs. Jerry M.....400 N. River Rd. (06)
Wong, Mrs. Norman F.....3632 Kohl Rd. (05)

West Lafayette

(*Zip Code* 47906)

Bahler, Mrs. Dean R.....104 Mohawk Dr.
Baker, Mrs. John R.....2321 Carmel Dr.
Beuerman, Mrs. Virgil A.....509 Emily St.
Bolin, Mrs. Robert C.....908 Windsor Dr.
Brady, Mrs. Kingdon.....612 Terry Lane
Canganelli, Mrs. Vincent G.....108 Mohawk Lane
Cartwright, Mrs. G. W.....401 Sharon Rd.
Carpenter, Mrs. Robert.....492 Littleton St.
Davis, Mrs. Howard B.....833 Hillcrest Rd.
Elliott, Mrs. Paul W.....348 W. Stadium Dr.
Fields, Mrs. Don C.....1321 N. Grant
Foster, Mrs. John.....105 Knox Dr.
Gripe, Mrs. Richard P...2179 Tecumseh Park Lane
Hannemann, Mrs. Robert E.....812 Avondale
Heid, Mrs. George J.....515 Park Ridge Dr.
Hughes, Mrs. Anson.....1712 Sheridan
Hughes, Mrs. Richard R.....908 Carrollton Blvd.
Keplinger, Mrs. James.....136 E. Navajo
Klatch, Mrs. Ben Z.....1415 Woodland Dr.
Knipers, Mrs. Fred M., Jr.....2225 Sacramento
Lind, Mrs. Jaap Jan.....750 Northridge
Loop, Mrs. Frederick A.....119 Leslie Dr.
McAdams, Mrs. Robert C.....625 Ridgewood Dr.
McFadden, Mrs. James M.....1424 N. Salisbury
Marvel, Mrs. Howard R.....136 Arrowhead Dr.
Marsh, Mrs. Geo. W.....2121 Happy Hollow Dr.
Mather, Mrs. Charles R.....1815 Ravina Rd.
Mather, Mrs. Robert L.....321 Leslie Ave.
Mentzer, Mrs. William.....125 Knox Dr.
Mount, Mrs. William M.....217 Pawnee Dr.
Peyton, Mrs. Frank W.....612 Ridgewood
Ramsey, Mrs. Geo. F.....202 Knox Dr.
Riggs, Mrs. W. A.....507 Sharon Rd.
Shively, Mrs. John L.....205 Lindberg Ave.
Spurlock, Mrs. F. H.....1625 Western Dr
Stahl, Mrs. Edward T.....324 Park Lane
Stuntz, Mrs. Edgar C.....148 Creighton Rd.
Trout, Mrs. David J.....101 Myrtle Dr.
Van Den Bosch, Mrs. W. R.....715 Princess Dr.
Wagner, Mrs. A. R.....1834 Summit Dr.
Waits, Mrs. Chester L.....622 Rose St.
Weller, Mrs. Wendell A.....153 Pathway Lane

Weller, Mrs. Ralph.....Box 38, Rossville (46065)
McKinney, Mrs. Donald
R. R. 2, Box 12-A, Otterbein (47970)

VANDERBURGH COUNTY

Evansville

(*Zip Code* 477 *plus zone number*).

A

Acre, Mrs. Robert R.....665 St. Mary's Dr. (15)
Adler, Mrs. Ray N.....1660 Lincoln Ave. (14)
Adye, Mr. Wallace M.....320 Inwood Dr. (11)
Alexander, Mrs. John E.
2263 E. Tennessee St. (11)
Allen, Mrs. William.....8203 Newburgh Rd. (15)
Anderson, Mrs. Milton H.
Woodmere Hospital (02)
Antes, Mrs. Earl H...1201 Bonnie View Dr. (15)
Arendell, Mrs. Robert E...700 Helfrich Lane (12)
Austin, Mrs. Eugene W.....721 Colony Rd. (15)

B

Baker, Mrs. Mason R.....4500 E. Cherry St. (15)
Baker, Mrs. Sam B.....217 Montclair Court (15)
Barnhart, Mrs. Willard T...507 S. Boeke Rd. (14)
Beck, Mrs. Robert E.....6000 Newburgh Rd. (15)
Beisel, Mrs. Larry H.....450 Audubon Dr. (15)
Bender, Mrs. Martin J..2416 Bayard Park Dr. (14)
Bendush, Mrs. Cecil L.....699 Blue Ridge Rd. (15)
Bennett, Mrs. Abner P...961 Blue Ridge Rd. (15)
Bissonnette, Mrs. Roger P...911 Colony Rd. (15)
Bloss, Mrs. Bryant A.....8700 Whetstone (11)
Boone, Mrs. Robert D....417 S. Alvord Blvd. (14)
Brakel, Mrs. Frank, Jr.....1429 Oriole Dr. (15)
Britt, Mrs. Robert L...6317 Newburgh Rd. (15)
Brockmole, Mrs. Arnold W.
5901 New Harmony Rd. (12)
Brooks, Mrs. Edwin.....5620 Kratzville Rd. (10)
Bryan, Mrs. Stanton L..3211 E. Mulberry St. (15)

Buddrus, Mrs. David.....508 S. Boeke Rd. (14)
Buehner, Mrs. Donald F.....1200 Bonnie View Dr. (15)
Burger, Mrs. Thomas C.....3915 Washington Ave. (15)
Burnikel, Mrs. Ray H.....960 S. Rotherwood Ave. (14)
Burress, Mrs. Clyde.....10100 Old St. Rd. (11)

C

Cacia, Mrs. John J.....420 S. Boeke Rd. (14)
Carlson, Mrs. Ralph F..1250 Bayard Park Dr. (14)
Cates, Mrs. Jeryl.....647 Plaza Dr. (15)
Clark, Mrs. Thomas W...820 S. Meadow Rd. (15)
Clouse, Mrs. Paul A.....5801 Newburgh Rd. (15)
Coleman, Mrs. Joseph E...2831 Wayside Dr. (11)
Colvin, Mrs. Robert.....2048 Polaris (15)
Combs, Mrs. Herman....Middle Mt. Vernon Rd. R. R. 1, Box 245 (12)
Cooper, Mrs. Waller W.....4410 Oak St. (15)
Corcoran, Mrs. P. J. V.....2412 E. Chandler Ave. (14)
Crawford, Mrs. James 631 Blue Ridge Dr. W. (15)
Crevello, Mrs. Albert J.....807 S. Burkhardt Rd. (15)
Cullnane, Mrs. Chris W.....3020 Mt. Vernon Ave. (12)

D

Daves, Mrs. W. Lawrence..3951 Bellemeade Ave. (15)
Davidson, Mrs. Harold H..800 Blue Ridge Rd. (15)
Davis, Mrs. Kenneth.....900 S. Burkhart (15)
Deems, Mrs. Meyers 6830 Arcadian Highway (15)
Denzer, Mrs. Edward K.....540 Scenic Dr. (15)
Denzer, Mrs. William O.....923 Bellemeade (13)
Dieckman, Mrs. Herbert S. 10 Johnson Place (14)
Dimmett, Mrs. James.....524 Plaza Dr. (15)
Dodd, Mrs. R. K.....1705 S. New Green River Rd. (15)
Durkee, Mrs. Melvin S.....615 Trinity Dr. (15)
Dycus, Mrs. Walter A.....3400 Koring Rd. (12)
Dyer, Mrs. Wallace K...812 St. James Blvd. (14)

E

Ebin, Mrs. J. L.....8500 Whetstone (11)
Engel, Mrs. Edgar L.....1411 E. Park Dr. (14)
Ewer, Mrs. Robert W.....7226 E. Blackford (15)

F

Faith, Mrs. Ira L.....950 Blue Ridge Rd. (15)
Faul, Mrs. Henry J.....725 S. Willow Rd. (14)
Faw, Mrs. Melvin L.....2400 E. Chandler (14)
Fenneman, Mrs. Robert J. Box 145, R. R. 8, Old St. Rd. (11)
Fitzsimmons, Mrs. Elvin L..500 S. Boeke Rd. (14)

G

Garland, Mrs. Edgar A.....719 Plaza Dr. (15)
Garst, Mrs. Garland.....4131 Lincoln Ave. (15)
Gaul, Mrs. L. Edward.....18 Johnson Pl. (14)
Geller, Mrs. Samuel.....R. R. 8, Box 143-A (11)
Getty, Mrs. William H..1810 Mt. Auburn Rd. (12)
Giorgio, Mrs. Douglas J.....916 S. Burkhardt Rd. (15)
Gourieux, Mrs. E. DeVerre 7500 Taylor Ave. (15)
Griep, Mrs. Arthur H...5414 Madison Ave. (15)
Grimm, Mrs. William C...513 S. Rotherwood Ave. (14)
Guckien, Mrs. Joseph.....2301 E. Powell (14)

H

Hachmeister, Mrs. Charles W. 5050 Lincoln Ave. (15)
Hammond, Mrs. R. Case 6820 Arcadian Hwy. (15)
Hare, Mrs. Daniel M.....5029 Lincoln Ave. (15)
Harlan, Mrs. William L...731 S. Frederick (14)
Harned, Mrs. Ben King, Jr.....6301 Lincoln Ave. (15)
Harris, Mrs. Robert L.....870 S. Boeke Rd. (14)
Hart, Mrs. L. Paul.....622 Trinity Dr. (15)
Hartley, Mrs. Clarence A., Jr.....300 Hesmer Rd. (11)
Hassel, Mrs. Walter.....3712 Herndon Dr. (11)
Healy, Mrs. Cornelius E. 430 Kings Valley Rd. (11)
Healy, Mrs. William.....3911 Bellemeade (15)
Heimburger, Mrs. Irvin L. 7700 Newburgh Rd. (15)
Heinrich, Mrs. Weston A..1408 Lincoln Ave. (14)
Hendershot, Mrs. Eugene L...7006 Newburgh Rd. (15)
Hermayer, Mrs. Stephen....1316 Bonnie View Dr. (15)
Herrmann, Mrs. Gordon T..218 S. Spring St. (14)
Herzer, Mrs. Clarence C.....211 E. Mill Rd. (11)
Himebaugh, Mrs. Gilbert J.....408 S. Alvord Blvd. (14)
Hobgood, Mrs. James L...7527 Taylor Circle (15)
Hoover, Mrs. J. Guy 8701 Old Petersburgh Rd. (11)
Hovda, Mrs. Richard B...800 St. James Blvd. (14)
Huggins, Mrs. Victor S...520 S. Alvord Blvd. (14)
Hyatt, Mrs. Gilbert T.....1127 Lincoln Ave. (14)

J-K

Johnson, Mrs. Harold V..1303 Masker Pk. Dr. (12)
Johnson, Mrs. Stephen L. 2215 Lincoln Ave. (14)
Kelley, Mrs. John B.....1420 Lark Dr. (15)
Kessler, Mrs. Robert..1200 Harrelton Court (15)
Kiechle, Mrs. Fred L.....726 S. E. First St. (13)
Kimmel, Mrs. George.....429 S. St. James (14)
Kincaid, Mrs. Robert S. 508 S. Runnymeade Ave. (14)

L

Langsam, Mrs. Charles L. 4511 Bellemeade Ave. (15)
Lashley, Mrs. Donald.....1406 Martin Lane (15)
Laubscher, Mrs. Clarence A. 1201 Laubscher Rd. (10)
Lawler, Mrs. John.....520 S. Roosevelt (14)
Lawrence, Mrs. Joseph C. 1362 E. Chandler Ave. (14)
Liebundguth, Mrs. Henry..5206 Lincoln Ave. (15)
Lessure, Mrs. Alfred P...400 S. Audubon Dr. (5)
Logan, Mrs. Jesse R.....503 First Ave. (10)
Longstaff, Mrs. John.....5913 Washington (15)

M

MacKenzie, Mrs. Pierce....2300 E. Gum St. (14)
McCool, Mrs. Joe H.....1 Woodmere Lane (11)
McDonald, Mrs. Joseph D..4300 Lincoln Ave. (15)
Marvel, Mrs. James A.....312 Royal Ave. (15)
Mathews, Mrs. James R....901 Meadow Rd. (15)
Miller, Mrs. LaVerne B.....501 Scenic Dr. (15)
Miller, Mrs. Milton J.....8201 Newburgh Rd. (15)
Mills, Mrs. Fred E.....555 S. Kelsey Ave. (14)
Mino, Mrs. Robert A.....2808 N. Shore Dr. (11)
Mullican, Mrs. Wm.....855 S. St. James (14)

N

Newnum, Mrs. Raymond L....545 Oriole Dr. (15)
Newton, Mrs. Roger.....1400 Lark Dr. (15)
Nicholson, Mrs. Raymond W. 1467 Southfield Rd. (15)
Nonte, Mrs. Leo R.....714 S. Willow Rd. (14)

O

Oswald, Mrs. Robert H.....2423 Lincoln Ave. (14)

P

Pastor, Mrs. Julius W..5901 Washington Ave. (15)
Pavlick, Mrs. Theodore J. 4212 Jennings Lane (12)

Pemberton, Mrs. Jack J.
6300 Falstead Rd. (12)
Pollard, Mrs. Walter S.
5809 Green Meadow Rd. (15)
Porro, Mrs. Francis W.....909 S. Villa Dr. (14)
Present, Mrs. Julian D.....201 S. Parker Dr. (14)
Pugh, Mrs. Willis L.....5200 Lincoln Ave. (15)

R

Ratcliff, Mrs. Forest..506 S. St. James Blvd. (14)
Ratcliffe, Mrs. Albert W.
510 S. E. First St. (13)
Reich, Mrs. Clarence E.
1209 N. Fulton Ave. (10)
Richey, Mrs. Clifford O.
407 Congress Ave. (15)
Rietman, Mrs. H. Jerome..2325 Lincoln Ave. (14)
Ritchie, Mrs. William D.
5201 Stringtown Rd. (11)
Ritz, Mrs. Albert S.....765 S. Boeke Rd. (14)
Rosenblatt, Mrs. Bernard B.
626 St. James Blvd. (14)
Royster, Mrs. Robert A.....34 Johnson Place (14)
Ruddick, Mrs. Hobart..Regina Pacis Home (15)
Rudolph, Mrs. Kenneth.....742 Plaza Dr. (15)
Rusche, Mrs. Thomas J...5089 Tippecanoe Dr. (15)
Russell, Mrs. Richard H...1015 Harrelton Ct. (15)

S

Schimmelpfennig, Mrs. Robert W.
3014 Washington Ave. (14)
Schirmer, Mrs. Robert H.....4300 Kasson (12)
Schneider, Mrs. Charles P.
2924 W. Maryland St. (12)
Sheehan, Mrs. E. Gregg.....934 York Rd. (15)
Shively, Mrs. Wyant J...1409 Martins Lane (15)
Siegel, Mrs. Lyle.....500 Oriole Dr. (15)
Sims, Mrs. Larry W.....1401 Greenfield Rd. (15)
Sinn, Mrs. Charles M.....1509 Redwing Dr. (15)
Slaughter, Mrs. Howard C.
651 St. Mary's Dr. (15)
Slaughter, Mrs. John C...622 College Hwy. (14)
Smith, Mrs. Roy M.....417 Senate (11)
Spain, Mrs. Thomas....801 S. E. Third St. (13)
Sprecher, Mrs. Herman C.
6601 Newburgh Rd. (15)
Springstun, Mrs. W. Russel..854 Lodge Ave. (14)
Stallings, Mrs. Hugh A..7601 Newburgh Rd. (15)
Sterne, Mrs. John H.....2308 E. Gum St. (14)
Stewart, Mrs. L. Ray....852 S. Alvord Blvd. (14)
Strueh, Mrs. Paul E.....1207 Harrelton Ct. (15)
Swan, Mrs. Robert E.....540 Oriole Dr. (15)

T

Tuholski, Mrs. James M.
6213 Newburgh Rd. (15)
Tweedall, Mrs. Daniel C...900 S. Meadow Rd. (15)

V-W

Venables, Mrs. A. J.....420 Runnymeade (14)
Vincent, Mrs. William.....7300 E. Powell (15)
Visher, Mrs. John W.
510 E. Mt. Pleasant Rd. (11)
VonderHaar, Mrs. Thomas E.
901 S. Burkhardt Rd. (15)
Walker, Mrs. William F...1220 Cullen Ave. (15)
Walter, Mrs. Paul A..4201 New Harmony Rd. (12)
Walter, Mrs. Robert F.
1514 S. Kentucky Ave. (14)
Warner, Mrs. Charles L.
4120 Bellemeade Ave. (15)
Weiss, Mrs. H. G.....1014 E. Powell Ave. (14)
Welborn, Mrs. Mell B...1832 Mt. Auburn Rd. (12)
Westerman, Mrs. Richard L.
1615 Mt. Auburn Rd. (12)
Wilhelmus, Mrs. C. Kenneth
6929 Newburgh Rd. (15)
Wilhelmus, Mrs. Gilbert M.
5901 Newburgh Rd. (15)
Willison, Mrs. George W..605 St. Mary's Dr. (15)
Wilson, Mrs. David.....615 Willow Rd. (14)
Wilson, Mrs. John D.....921 Colony Rd. (15)
Wilson, Mrs. Ralph.....1522 Audubon Dr. (15)
Wynn, Mrs. Justice F...651 S. Weinbach Ave. (14)

Y-Z

Young, Mrs. C. Curtis, Jr...2327 Lincoln Ave. (14)
Zeier, Mrs. Francis G.....3708 Mulberry (15)

Stover, Mrs. Wendell C.
20 Lake Shore Drive, Boonville (47601)
Crist, Mrs. John R.....320 Emmick, Mt. Vernon (47620)
Hirsch, Mrs. H. L...801 Williams Dr., Mt. Vernon (47620)
Vogel, Mrs. John L...530 E. Fifth St., Mt. Vernon (47620)
Rusche, Mrs. Henry J.....Hwy. 261, Newburgh (47630)
Woodward, Mrs. Ben E.
#6 Orchard Lane, R. R. 1, Newburgh (46730)
Zwickel, Mrs. R. E.....Darby Hills, Newburgh (47630)
Ropp, Mrs. Harold E...Church St., New Harmony (47631)
Smith, Mrs. Gordon L.....R. R. 2, New Harmony (47631)

VIGO COUNTY

Speas, Mrs. Robert C...Box 22, Seelyville (47878)

Terre Haute
(*Zip Code* 468 *plus zone number*)

A

Anderson, Mrs. W. C.....380 S. 22nd St. (03)
Ault, Mrs. Roy J.....200 Lakeview Dr. (03)

B

Bannon, Mrs. William G.....2126 Ohio Blvd. (03)
Blum, Mrs. Leon L.....3200 Ohio Blvd. (03)
Bopp, Mrs. Henry W., Jr...73 Allendale Pl. (02)
Bopp, Mrs. Henry W., Sr...132 Barton Ave. (03)
Bopp, Mrs. James.....330 Hamilton Dr. (02)
Boyd, Mrs. H. Clark.....44 Long Ridge Rd. (02)
Bristol, Mrs. H. M. S.....2326 Tippecanoe (03)
Brown, Mrs. Robert R...2544 N. Ninth St. (02)
Burkle, Mrs. Robert J...128 Gardendale Rd. (03)

C-D

CaJacob, Mrs. Melville E...1000 S. Sixth St. (07)
Caldwell, Mrs. M. V.....R. R. 7, Box 449 (03)
Carpenter, Mrs. Donald J...6879 Carlisle Rd. (38)
Chau, Mrs. Andrew Y. S.....9 Monroe Blvd. (03)
Connerley, Mrs. Marion L...2824 Ohio Blvd. (03)
Conway, Mrs. Thomas J.....207 Barton Ave. (03)
Cristee, Mrs. James W.....1530 S. 6th St. (02)
Crockett, Mrs. Wayne A.....3601 Ohio Blvd. (03)
Davis, Mrs. Paul E.....1910 Boston (05)
Dierdorf, Mrs. Fred.....103 S. 23rd St. (03)
Drummy, Mrs. W. W., Jr....231 Fruitridge (03)
Dyer, Mrs. G. Wallace.....2710 Wilson Dr. (03)

E-F

Freed, Mrs. John E., Sr.....2408 N. 10th St. (04)
Freed, Mrs. John E., Jr...2425 N. Eighth St. (04)

G

Gerrish, Mrs. Don A.....5206 Clinton Rd. (05)
Gilbert, Mrs. Ivan.....2641 Crawford St. (03)
Goodman, Mrs. Hubert T.
220 Gardendale Rd. (03)
Gossom, Mrs. Donn R.....1904 Ohio Blvd. (03)

H

Haslem, Mrs. John R.
1700 S. Fruitridge Ave. (03)
Hetherington, Mrs. John A...2501 Poplar St. (03)
Hogan, Mrs. Thomas W.....332 S. 31st St. (03)
Hoover, Mrs. D. A.....2146 8th Ave. (04)
Humphrey, Mrs. Paul E...2631 N. Ninth St. (04)

J-K

Johnson, Mrs. Edward..313 Terre Vista Dr. (03)
Johnson, Mrs. Paul D., Jr.....62 AllenDale (02)
Kabel, Mrs. Robert N.....2201 Ohio Blvd. (03)
Kunkler, Mrs. Arnold W...147 Monterey Ave. (03)
Kunkler, Mrs. William C...1119 S. Center St. (07)

L

LaBier, Mrs. C. Russell....R. R. 5, Box 405 (01)
Lancet, Mrs. Robert O.....20 Nitche Dr. (03)
Lee, Mrs. James C.....12 32nd St. Ct. (03)
Lenyo, Mrs. Ludimere...700 Delaware Ave. (04)
Loewenstein, Mrs. Werner L.
1909 Ohio Blvd. (03)
Luckett, Mrs. C. L.....R. R. 2 (02)
Lyons, Mrs. L. Mason.....123 S. 21st St. (03)

M

McBride, Mrs. Noel S.....67 Allendale Pl. (02)
McCrea, Mrs. Fred R.....2517 N. Eighth St. (04)
McEwen, Mrs. James W.....107 Wren Dr. (03)
McLaughlin, Mrs. Gordon..R. R. 3, Box 128 (02)
Malone, Mrs. L. A.....2511 N. Ninth St. (04)
Mankin, Mrs. William....175 Lakeview Dr. (03)
Mason, Mrs. Lester M.....66 Allendale Pl. (02)
Mattox, Mrs. Don M.....240 Hamilton Dr. (03)
Mattox, Mrs. Ernest.....240 Hamilton Dr. (03)
Meissel, Mrs. Robert L.....10 Monroe Blvd. (03)
Miklozek, Mrs. J. E.....2204 Ohio Blvd. (03)
Mitchell, Mrs. A. M.....333 S. 22nd St. (08)
Mitchell, Mrs. John R.....2421 Ohio Blvd. (03)
Musselman, Mrs. Glen..7222 Wabash Ave. (03)

N-O-P

Nay, Mrs. Ernest O.....29 S. 20th St. (03)
Neudorff, Mrs. Louis G.....213 Barton Ave. (03)
Oliphant, Mrs. Robert W.....8 31st St. Ct. (03)
Pearce, Mrs. Roy V.....269 S. 26th St. Dr. (03)
Peterson, Mrs. D. D.....74 Doe Dr. (04)

R

Reed, Mrs. Robert C.....205 Lakeview Dr. (03)
Reynolds, Mrs. Richard J...72 Allendale Pl. (02)
Richart, Mrs. James V.....336 Hamilton Dr. (03)
Rourke, Mrs. Robert F.....R. R. 4, Box 415 (02)
Rubin, Mrs. Milton M.....2401 Ohio Blvd. (03)

S

Sayers, Mrs. Frank E.....436 Bluebird Dr. (03)
Sherb, Mrs. Burton E...211 Gardendale Rd. (03)
Schott, Mrs. Edward J.....653 Oak St. (07)
Schumaker, Mrs. Robert A.
3498 Margaret Ave. (02)
Scully, Mrs. William E.....2649 Oak St. (03)
Showalter, Mrs. John R., Jr.
2511 N. Eighth St. (04)
Siebenmorgen, Mrs. Paul 2515 N. Seventh St. (07)
Silverman, Mrs. Norman M.
1142 S. Center St. (02)
Sison, Mrs. Vicente G.....5656 Heritage Dr. (03)
Stoelting, Mrs. J. Lewis..1919 N. Seventh St. (07)
Strecker, Mrs. William L...88 Allendale Pl. (02)
Sullivan, Mrs. John M.....2242 College Ave. (03)

T-V

Topping, Mrs. Malachi C.....3505 Ohio Blvd. (03)
Veach, Mrs. William L.....101 Allendale Pl. (02)
Vance, Mrs. William C...4951 Dixie Bee Rd. (02)

W-Z

Weber, Mrs. Joseph.....2121 N. 11th St. (04)
West, Mrs. Roger F.....86 Potomac (03)
Wheeler, Mrs. Byron C.....31 Ferndale Dr. (03)
White, Mrs. James V.....R. R. 1, Box 271 (01)
Wiedemann, Mrs. Frank E.
Terre Haute House (01)
Wilson, Mrs. Fred L.....1124 S. Center St. (02)
Zwerner, Mrs. Paul F...2510 N. Eighth St. (04)

WAYNE-UNION COUNTIES

Hill, Mrs. Paul G...5 N. Foote St., Cambridge City (47327)
Kenyon, Mrs. Emil..303 Mulberry, Cambridge City (47327)
Barton, Mrs. Willoughby M.
200 N. Morton, Centerville (47330)
Shepard, Mrs. Fred F.....College Corner, Ohio (45003)
Hutchison, Mrs. Donald R.....Fountain City (47341)
Lewis, Mrs. J. Frank.....Liberty (47353)
McWilliams, Mrs. William B.....R. R. 4, Liberty (47353)

Richmond

(*Zip Code* 47374)

Adney, Mrs. Frank.....214 S. E. Parkway
Ake, Mrs. Loren.....220 S. 18th St.
Allen, Mrs. Robert T.....212 S. 21st St.
Anderson, Mrs. Robert C...Richmond State Hosp.
Ballenger, Mrs. William E.....3002 Dorothy Lane
Blossom, Mrs. Paul W.....620 S.W. 21st St.
Bomberg, Mrs. R. Brian.....3515 Woods Dr.
Brooks, Mrs. G. Tanner.....415 Earlham Dr.
Clouse, Mrs. John Franklin.....414 West Dr.
Coble, Mrs. Frank H.....R. R. 3, Box 38
Daggy, Mrs. James R.....47 S. 24th St.
Deanovic, Mrs. Frank W.....3012 Park Ave.
Dehner, Mrs. John R.....10 Sunset Dr.
Dingle, Mrs. Paul E.....206 S. 32nd St.
Dreyer, Mrs. Ralph W.....4111 Backmeyer Rd.
Ebbinghouse, Mrs. Tom.....13 Parkway Lane
Gibson, Mrs. Alois E.....209 S. 16th St.
Griffis, Mrs. Vierl C.....201 S. 23rd St.
Guthrie, Mrs. James R.....3112 S. E. Parkway
Harmon, Mrs. Carl J.....6 Keystone, Apt. 6
Hawk, Mrs. Edgar Allen.....616 Garwood Road
Hibner, Mrs. Dan W.....2502 Locust Lane
Johnson, Mrs. George M.....115 S. 23rd St.
Lee, Mrs. Glen Ward.....Greenmount Pike
Ling, Mrs. John F.....6 Parkway Lane
Loomis, Mrs. Charles H.....Garwood Rd.
McIlroy, Mrs. Richard J.....Richmond State Hosp.
Mader, Mrs. John H.....1528 Chester Blvd.
Meredith, Mrs. Elwood J.....200 S. 20th St.
Miller, Mrs. Harold L.....560 Tingler Rd.
Millis, Mrs. Arthur B.....2301 S. "A" St.
Park, Mrs. Byron J.....303 S. 23rd St.
Plasterer, Mrs. Edward D.....[illegible]2 S. 16th St.
Ramsdell, Mrs. Glen A.....501 Henley Rd. S.
Schmitt, Mrs. Robert W.....25 Circle Dr.
Sherer, Mrs. Kenneth E.....4 Parkway Lane
Shields, Mrs. Tom S.....2203 S. "E" St.
Short, Mrs. John A.....111 S.W. "G"
Snyder, Mrs. Morris C.....212 S. 22nd St.
Spellmeyer, Mrs. John C.....3811 Pinehurst Dr.
Stepleton, Mrs. John D.....4220 Bockmeyer Rd.
Stilwell, Mrs. William R.....2607 S. "C" Pl.
Sweet, Mrs. Howard E.....Garwood Rd.
Warrick, Mrs. Francis B.....2106 South "B" St.
Weitemier, Mrs. Raymond A.....25 S. 25th St.
Wertenberger, Mrs. Morris..779 Greenmount Pike
Wiland, Mrs. Olin K.....4375 S. "C" St.
Wynegar, Mrs. David E.....Richmond State Hosp.
Zore, Mrs. Joseph J.....2603 Reeveston Rd.

WELLS COUNTY

Bluffton

(*Zip Code* 46714)

Boonstra, Mrs. Charles E.
1110 Highland Pk. Circle
Bradley, Mrs. Louis F.
Country Club Addition, R. R. 4
Caylor, Mrs. Charles H.....1220 Sycamore Lane
Caylor, Mrs. Harold D.....411 W. Market St.

Caylor, Mrs. Truman E.....920 River Rd.
Collins, Mrs. Jack T.....R. R. 3
Cook, Mrs. Robert G.....1225 Summit Ave.
Dorrance, Mrs. Thomas O.....302 Northwood Dr.
Eisaman, Mrs. Jack L.....1011 Riverview Dr.
Huebner, Mrs. Gilbert.....1120 River Rd.
Huffman, Mrs. Galen.....1000 Summit Ave.
Jackson, Mrs. Charles E.....1012 Riverview Dr.
Jaurnig, Mrs. Russell R.
118 Northwood Dr., Apt. 5
Kephart, Mrs. S. Bruce.....P. O. Box 12
McCaslin, Mrs. Charles.....717 Riverview Dr.
Matzen, Mrs. Richard N.....R.R. 3
Mayock, Mrs. Peter P.....225 W. Central Ave.
Meier, Mrs. Donald W.....1205 Summit Ave.
Mock, Mrs. Farrell.....1215 Echo Lake
Mudrony, Mrs. Jeno.....R. R. 4
Panos, Mrs. Constantine G.....Elm Grove Road
Phillips, Mrs. John F.....411 W. Washington
Pietz, Mrs. David G.....322½ E. Central Ave.
Rusher, Mrs. Merrill W.....920 Ranch Rd.
Shaw, Mrs. Glenn R.....926 Riverview Dr.
Sorg, Mrs. David.....734 Fort Wayne Rd.
Steckbeck, Mrs. Robert L.....627 McCoy Rd.
Strehler, Mrs. Donald A.....R. R. 4
Symon, Mrs. William E.....632 S. Main St.
Talbert, Mrs. Pierre C.....508 W. Cherry St.
Yoder, Mrs. Richard P.....931 S. Wayne St.

Stevens, Mrs. Adam
203 W. Diamond St., Kendallville (46755)
Willard, Mrs. Richard D.
P. O. Box 162, Liberty Mills (46946)

WHITE COUNTY

Derhammer, Mrs. George L.....Brookston (47923)

Monticello
(*Zip Code* 47960)

Beck, Mrs. David C.....R. R. 3
Carney, Mrs. John.....R. R. 2
Dickerson, Mrs. W. Martin....218 E. Market St.
Hibner, Mrs. Nolan A.....214 S. Illinois
Jehanyar, Mrs. M. Ali.....R. R. 5
McClure, Mrs. Stanley E.....R. R. 1
Morris, Mrs. Warren V.....R. R. 3

Baynes, Mrs. Frank L.....Wolcott (47995)

WHITLEY COUNTY

Minick, Mrs. Linus J.....N. Line St., Churubusco (46723)

Columbia City
(*Zip Code* 46725)

Hamilton, Mrs. Thomas G.....R. R. 3
Heritier, Mrs. C. Jules.....700 Hill Dr.
Langohr, Mrs. John L.....321 N. Main St.
Lehmberg, Mrs. Otto F. C.....706 West Park Dr.
Niccum, Mrs. Warren L.....Grove Park
Reid, Mrs. Donald B.....West Park Dr.
Roth, Mrs. James R.....323 N. Chauncey St.
Thompson, Mrs. Frank M.....526 E. Jefferson
Vogel, Mrs. John L.....Grove Park
Wait, Mrs. Jerome H.....R. R. 5
Wilson, Mrs. John S.....R. R. 3

Stalter, Mrs. Gaylord W...North Webster (46555)
Garber, Mrs. Paul A.
305 E. Seminary, Greencastle (46135)
Huffman, Mrs. Verlin P.
701 State St., South Whitley (46787)

MEMBERS-AT-LARGE

Apple, Mrs. Eddie R.
503 W. Market St. Salem, Washington (47167)
Artz, Mrs. Richard W.
606 Darling, Angola, Steuben (46703)
Beardsley, Mrs. Frank A.
751 E. South St., Frankfort, Clinton (46041)
Blessinger, Mrs. Louis H.
738 N. Capitol Ave., Corydon, Harrison-Crawford (47112)
Bogardus, Mrs. Carl R.
Kyana Farm, Austin, Scott (47102)
Burkhardt, Mrs. Boyd
328 N. West St., Tipton, Tipton (46072)
Cameron, Mrs. Don F.
313 E. Maumee, Angola, Steuben (46703)
Carneal, Mrs. Thomas E.
305 S. Market St., Winamac, Pulaski (46996)
Castro, Mrs. Ignacio B., Jr.,
685 Wanda St., Scottsburg, Scott (47170)
Compton, Mrs. George L.
221 N. Independence, Tipton, Tipton (46072)
Compton, Mrs. R. L.
1867 Trevilian Way, Louisville 5, Ky. (40205)
Eiler, Mrs. Paul A.
R. R. 2, North Manchester, Wabash (46962)
Ericson, Mrs. Harold L.
Box 366, Windfall, Tipton (46076)
Farris, Mrs. John J.....2 Brettwood Dr., Washington, Daviess (47501)
Fisher, Mrs. John E.,
206 E. Main St., Attica, Fountain (47918)
Fong, Mrs. Theodore C. C.....316 Bellaire Dr., Madison, Jefferson (47251)
Graves, Mrs. Noel S.....404 W. Main, Vevay, Switzerland (47043)
Hall, Mrs. Donald L.
R. R. 1, Petersburg, Pike (47567)
Hare, Mrs. Francis W.....R. R. 5, Madison, Switzerland (47250)
Hathaway, Mrs. Clayton B.
410 N. Broadway, Butler, DeKalb (46721)
Hathaway, Mrs. Clayton B., Jr.
1203 Mark Dr., Auburn, DeKalb (47606)
Hathaway, Mrs. William H.,.....710-A East Cedar St., South Bend, St. Joseph (46617)
Hisrich, Mrs. Lloyd W.
6 Henry St., Batesville, Ripley (47006)
Hoffman, Mrs. Max N.....227 Elm Dr., Covington, Fountain (47932)
Hollenburg, Mrs. Edward L.
501 Huddleston Rd., Winamac, Pulaski (46996)
Huckleberry, Mrs. Irvin E...502 W. Mulberry St., Salem, Adams (47167)
Hughes, Mrs. W. Bradley,
P. O. Box 368, Waterloo, Fayette (46793)
Jinnings, Mrs. Loren..807 S. Lee, Garrett, DeKalb (46738)
Kincaid, Mrs. Raymond.....R. R. 1, Tipton, Tipton (46072)
Kurtz, Mrs. Wm. A.....R. R. 1, Tipton, Tipton (46072)
Lett, Mrs. E. Briscoe.....502 W. 1st St., Loogootee, Daviess (47553)
Lindsay, Mrs. H. B.....1108 Bedford Rd., Washington, Daviess (47501)
Lynch, Mrs. Otis R.
Marengo, Crawford (47140)
Maris, Mrs. Lee J.
606 Brady St., Attica, Fountain (47918)
Mason, Mrs. Donald G.
401 E. Maumee, Angola, Steuben (46703)
Maurer, Mrs. Robert
1115 N. Meridian, Brazil, Clay (47834)
May, Mrs. R. Milton..Laconia, Harrison (47135)
McClain, Mrs. Marvin L.
384 E. McClain, Scottsburg, Scott (47170)
McConnell, Mrs. William C.
512 N. Meridian, Sunman, Ripley (47041)
Mehne, Mrs. Richard G.
R. R. 1, Brazil, Clay (47834)
Mount, Mrs. Mathias S.
148 S. Lewis St., Bloomfield, Greene (47424)

Omstead, Mrs. Milton
110 S. Sixth St., Petersburg, Pike (47567)

Pearson, Mrs. William E.
290 N. Wabash, Wabash, Wabash (46992)

Person, Mrs. Theodore C.....600 N. Main, Veedersburg, Fountain (47987)

Rang, Mrs. Arthur A.....211 N. E. 9th St., Washington, Daviess-Martin (47501)

Ringer, Mrs. William A.
408 E. Pike, Attica, Fountain (47918)

Row, Mrs. George S.
101 E. Jefferson St., Osgood, Ripley (47037)

Schrepferman, Mrs. Wayne
R. R. 2, Hamilton, Steuben (46742)

Scott, Mrs. Irvin H.....320 W. Washington, Sullivan, Sullivan (47882)

Seat, Mrs. Marshall H...310 Hefron, Washington, Daviess (47501)

Seward, Mrs. George.....201 W. Main St., North Manchester, Wabash (46962)

Silvers, Mrs. L. Michael.....602 N. Elm St., North Manchester, Wabash (46962)

Sloan, Mrs. W. Keith..340 Bunton Lane, Madison Switzerland (47251)

Smith, Mrs. Lloyd H.....R. R. 2, Briarwood Add., N. Manchester, Wabash (46962)

Stephens, Mrs. Lowell R.....P. O. Box 185, Covington, Fountain (47932)

Stoops, Mrs. Jean T.....563 N. Miami, Wabash, Wabash (46992)

Stouder, Mrs. Albert E.....407 S. West St., Kempton, Tipton (46049)

Tower, Mrs. T. Kermit
Campbellsburg, Pike (47108)

Woner, Mrs. John.....390 "A" St. N. E., Linton, Greene (47441)

Zink, Mrs. Robert.....502 Broadway, Madison, Switzerland (47250)

1968 ROSTER
INDIANA SOCIETY MEDICAL SERVICE REPRESENTATIVES
INDIANAPOLIS CHAPTER

OFFICERS, 1968

President	Robert H. Thayer
Vice President	Henry Pahlke
Secretary	John Brown
Treasurer	Moody Cross

ABBOTT LABORATORIES, INC.			
C. Will Hall	743 Alwyne, Carmel	46032	846-0272
James P. Smith	P.O. Box 363, Carmel	46032	846-2450
AMES COMPANY			
Dwight A. Gosling	623 Emerson Rd., Carmel	46032	846-6874
ARMOUR PHARMACEUTICAL COMPANY			
Ellis Caudill	3652 Birchwood	46205	923-4102
ARNAR-STONE			
Joe F. "Pete" Surratt	Rt. 1, Box 208-A, Whitestown	46075	769-3685
AYERST LABORATORIES			
Samuel A. Muir	3568 N. Whitcomb Ave.	46224	291-8508
Thomas J. Wise	428 N. Girls School Rd.	46224	244-7092
BAXTER LABORATORIES			
Charles F. Lloyd	909 Preston Dr.	46280	846-1192
BREON LABORATORIES			
Harold B. Robertson	6140 N. Sherman Dr.	46220	255-7492
BRISTOL LABORATORIES			
Robert Delagrange	75 Park View, Carmel	46032	846-0590
W. C. Hammond	78 Chickade Dr., Lake Lasalle, Morgantown, Ind.	46160	597-5121
John C. Lacopo	5521-D Versaille Dr.	46227	783-1206
C. Roger Massa (DM)	6368 Green Leave Rd.	46220	251-4647
Pete Strom	5429 N. New Jersey	46220	251-8261
Robert H. Thayer	455 E. Clinton St., Frankfort	46041	654-6655
BURROUGHS-WELLCOME & CO.			
J. E. Borgmann	7226 N. Parker Ave.	46240	253-1015
John Brown	307 W. Gray Road, Carmel	46032	846-1437
Larry Geller	3900 N. Shadeland	46226	545-6039
CENTRAL PHARMACAL CO.			
Robert Horn	425 S. Main St., New Castle	47362	529-1557
D. J. "Donn" Moore	11217 Fogelson Court	46229	894-7305
John Thomas	5916 Schoolwood Dr.	46224	291-8306
CENTURY PHARMACEUTICALS, INC.			
Ross A. Deardorff	6383 Monitor Dr.	46220	251-4602
CIBA PHARMACEUTICAL CO.			
Marshall Kitterman	5265 E. 75th St.	46250	849-0951
Robert Kitterman	7702 Sioux Trail	46250	849-3372
Herman F. Radtke	5809 Winston Dr.	46226	547-7922
DOME CHEMICALS, INC.			
Robert Swift	1325 W. Main St., Carmel	46032	846-5540
ENDO LABORATORIES, INC.			
Robert Lawalin	9331 Granville Lane	46219	898-2403
Charles A. Sutton	13617 N. Meridian St., Carmel	46032	846-5000

FLEMING & CO.			
Vic Windle	4913 Karen Dr.	46226	547-7217
FLINT LABORATORIES			
William Lukanovich	5513 Scarlet Terrace	46254	295-3597
GEIGY PHARMACEUTICALS			
Joseph R. Cook	3821 E. 61st	46220	251-2084
Charles Hoskins	P. O. Box 29126, Cumberland	46229	894-7278
HOLLAND-RANTOS CO., INC.			
Norman Cook	2603 N. Jefferson, Muncie	47303	284-5176
INHALATION THERAPISTS			
William Hartford	3500 Lafayette Rd.	46222	293-3810
LAKESIDE LABORATORIES			
Paul R. Lowe	5054 W. 13th St.	46224	241-2075
LEDERLE LABORATORIES			
John Berck	4929 W. 52nd St.	46254	291-0357
Ned Hugus	127 W. 111th St., Carmel	46032	846-5474
McNEIL LABORATORIES, INC.			
W. C. Dollens	4226 N. Meridian St.	46208	283-2121
Charles T. Love	4450 Guilford Ave.	46205	283-5015
MASSENGILL CO.			
Wm. E. Massengill	604 Turtle Creek, S. Dr., Apt. 8	46227	786-2372
MEAD JOHNSON LABORATORIES			
Glen Kesler	3321 W. 48th St.	46208	291-5666
Robert A. Terry	8051 Sycamore Springs Trail	46250	849-4937
MERCK SHARP & DOHME			
Paul Furnish	3947 Forest Manor	46218	545-3200
Henry Pahlke	8311 Rumford Rd.	46219	898-7722
MERRELL, WILLIAM S. CO.			
H. O. D. Boone (retired)	5281 Primrose Ave.	46220	255-9710
Jack Rettberg	6007 Cape Charles Dr.	46226	547-8371
MILEX LABORATORIES			
Amos Phelps	5320 E. 11th St.	46219	357-9811
MODERN DRUGS			
K. E. Hoy, Sr.	1139 Reed Pl.	46203	632-7148
K. E. Hoy, Jr.	1139 Reed Pl.	46203	632-7148
NEISLER LABORATORIES			
Jon Young	2611 Dell Zell Dr.	46220	252-3542
NATIONAL DRUG CO.			
Robert Lovell	1211 N. Eleanor	46224	241-0966
Wm. R. Schertzinger	500 Crescent Ct., Frankfort	46041	654-6606
ORTHO PHARMACEUTICAL CORP.			
Bill McKimmie	9865 Lakewood Dr. W.	46280	846-6881
Eric Gunar Tysklind	1449 Orchard Park, N. Dr.	46280	Call Information
PARKE DAVIS & CO.			
Al Griffin	4520 Devon Ct.	46226	547-2802
M. O. Hollingsworth	6446 Brokenhurst	46220	251-2422
Joe Limoges (DM)	8115 Oakland Rd.	46240	255-6442
PFIZER LABORATORIES			
Joe Gorham	3014 E. Berwyn	46203	784-5524
PITMAN-MOORE CO.			
E. O. "Bill" Hoy	8940 Frontenac Rd.	46226	898-4824
Terry Guttrich	1247 Stockton	46260	255-2324
Joseph F. Keers	3217 N. Winfield	46222	923-1789
Wm. C. McCrory	6244 Park Ave.	46220	255-6552
PURDUE FREDERICK CO.			
George Snider	6476 N. Parker Ave.	46220	251-8114

ROERIG & CO.			
Max A. Allen	R.R. 1, Box 278-C, Noblesville	46060	4-896-2865
Vic Market	5640 Kilmer Lane	46250	849-3012
Les Nagley	5845 E. Michigan St.	46219	356-4398
Larry Latimer	914 Easy St.	46227	881-0827
RORER, INC., WILLIAM H.			
John Karnes	423 Madison Ave.	46219	898-2923
SMITH, MILLER & PATCH, INC.			
Ken Long	8829 Madison Ave.	46227	881-7278
Larry G. Roberts	409 W. 7th St., Anderson	46016	643-8523
SQUIBB & SONS, E. R.			
Joe E. Ewing	4702 E. 35th St.	46218	547-8907
Ivel Larmer (DM)	4809 E. 70th St.	46220	251-3631
Lionel E. Lee	1517 Brewster	46260	293-0329
STANDARD DRUG PRODUCTS			
Wallace MacLellan	6716 Cricklewood Rd.	46220	849-3172
STUART CO.			
John Nichol	8709 Carrollton Ave.	46240	846-0482
Robert W. Smith	1525 106th St.	46080	846-1097
SANDOZ PHARMACEUTICALS			
J. Lee Linton	10017 Orchard Park Dr. W.	46280	846-2959
SYNTEX CORPORATION			
John R. Van Aman	125 Senna Dr., Carmel	46032	846-3649
Fremont E. Young	R.R. #3, Box 105, Lewis Lake, Brownsburg	46112	852-5919
TESTAGAR (FELLOWS) & CO.			
Don Franklin	6102 S. Rural Dr.	46227	784-2873
USV PHARMACEUTICAL CORPORATION			
John Porter	3357 N. Colorado	46218	546-2736
James P. Eby	34 Jenny Lane	46201	359-9016
WARNER-CHILCOTT			
Robert Fuller	R.R. #17, Box 590	46254	852-5437
William Shannon	2919 S. Parker	46203	787-9865
WAMPOLE LABS.			
Robert J. Johnson	R.R. #2, Box 91, Shelbyville	46176	392-3334
WARREN-TEED PHARMACEUTICALS, INC.			
Herschell H. Lammey	1161 E. 56th St.	46220	255-1646
WALLACE PHARMACEUTICALS			
Jere Crawley	3800 W. Michigan St.	46222	241-9074
Robert Leturgez	9252 Central Ave.	46280	846-5983
WINTHROP LABS.			
Moody Cross	5621 Ralston Ave.	46220	253-6718
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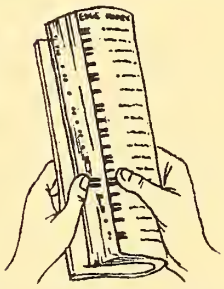

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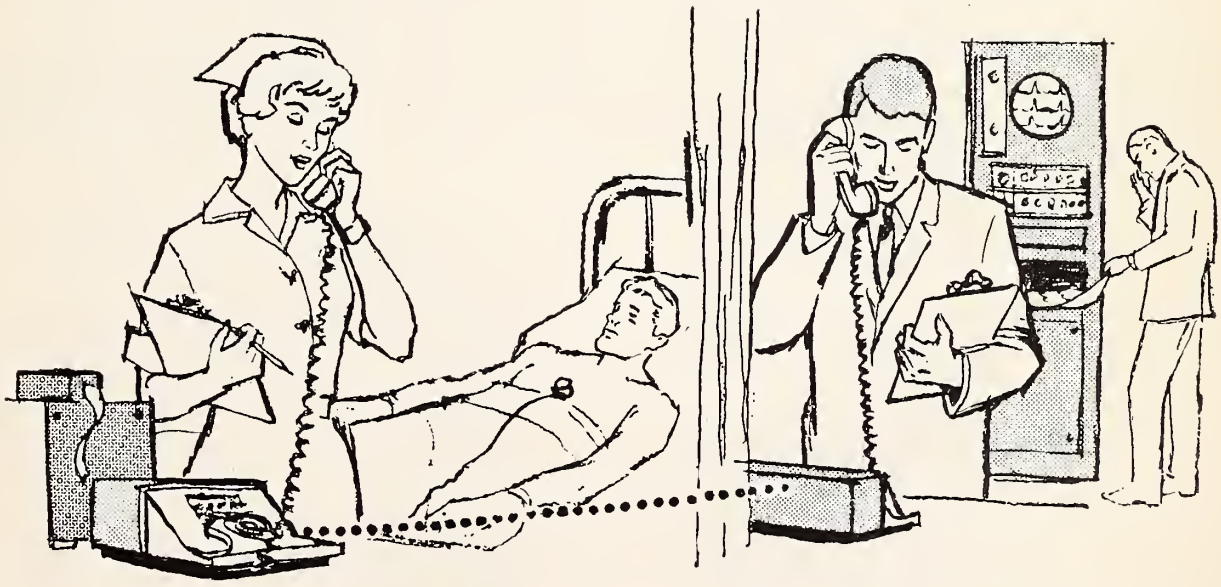

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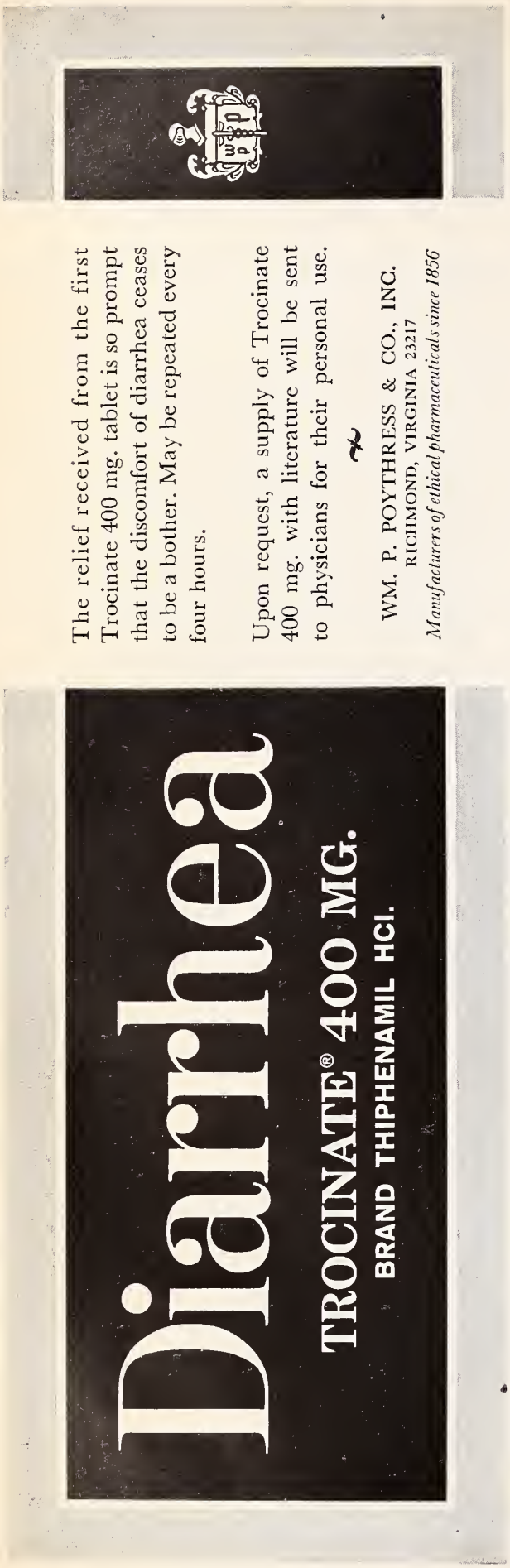

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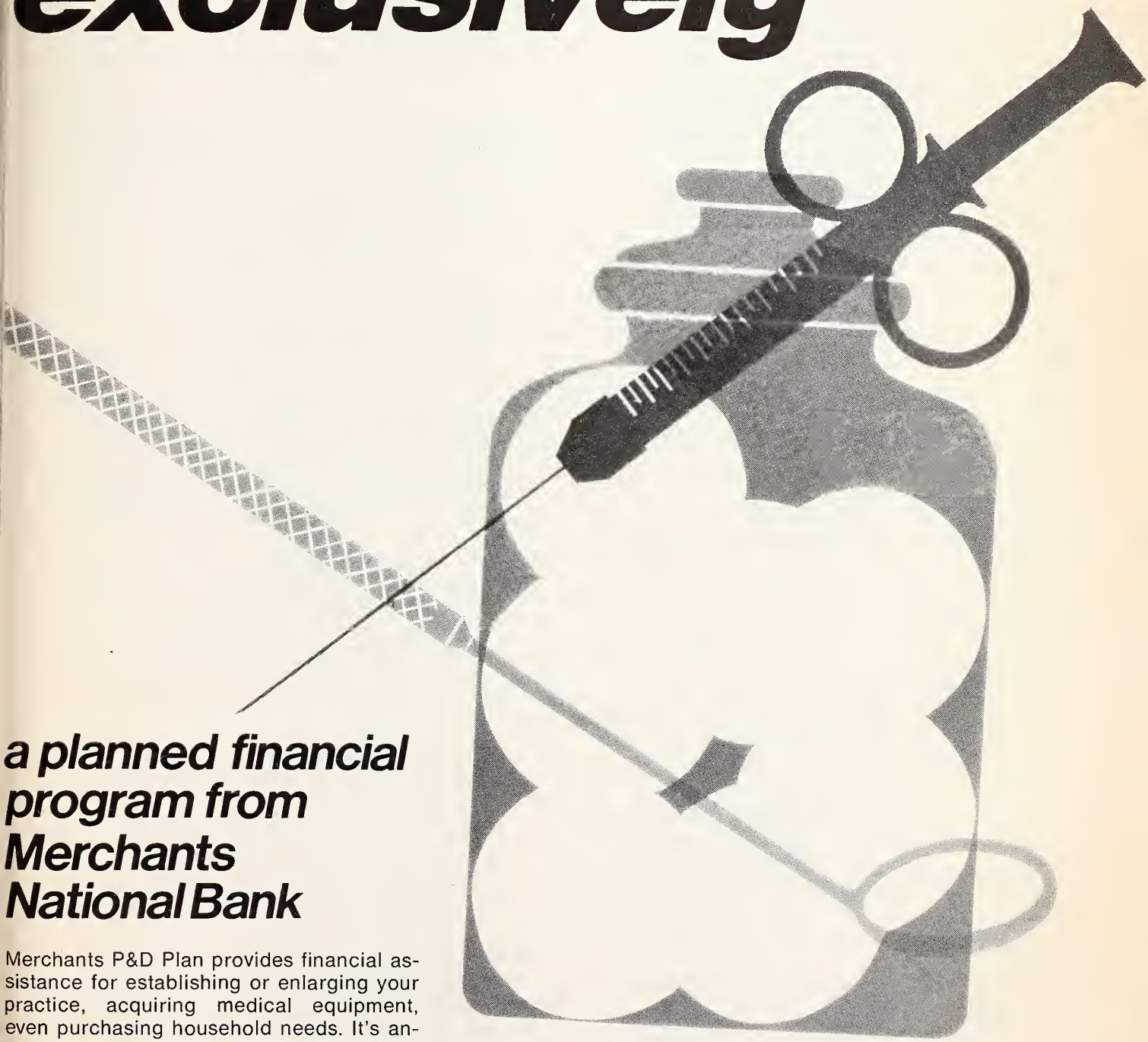

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List of Indiana Accredited Schools of Professional Nursing Preparing for Licensure As Registered Nurses

INDIANA STATE BOARD OF NURSES' REGISTRATION AND NURSING EDUCATION
100 North Senate Avenue, Room 1018, Indianapolis, Indiana 46204

April, 1968

HOSPITAL DIPLOMA PROGRAMS

Name of School of Nursing	Location	Director	Zip Code
Deaconess Hospital	Evansville	Miss Irma M. Bolte, R.N.	47710
Lutheran Hospital	Fort Wayne	Miss Virginia Williamson, R.N.	46807
Parkview-Methodist	Fort Wayne	Miss Marie Kolter, R.N.	46805
St. Joseph's Hospital	Fort Wayne	Sister M. Theodorita, R.N.	46804
X St. Mary Mercy Hospital	Gary	Mrs. Mary Gulyassy, R.N.	46402
Marion County General Hospital	Indianapolis	Mrs. Thelma Richardson, R.N.	46202
X Methodist Hospital	Indianapolis	Miss Fredericka E. Koch, R.N.	46202
X St. Vincent's Hospital	Indianapolis	Sister Delphine, R.N.	46208
St. Elizabeth Hospital	Lafayette	Sister M. Florianne, R.N.	47904
Holy Cross	South Bend	Sister M. Bartholomew, R.N.	46622
Memorial Hospital	South Bend	Miss Florence G. Young, R.N.	46601
St. Anthony Hospital	Terre Haute	Sister M. Alvera, R.N.	47807

BACCALAUREATE DEGREE PROGRAMS

Name of School of Nursing	Location	Director, Dean or Head of Department	Zip Code
Univ. of Evansville	Evansville	Miss Mildred C. Boeke, R.N., Director	47704
Goshen College	Goshen	Miss Orpah B. Mosemann, R.N., Director	46526
DePauw University	Greencastle	Mrs. Catherine M. Friddle, R.N., Director	46135
Indiana University	Indianapolis	Miss Emily Holmquist, R.N., Dean	46202
Ball State University Dept. of Nursing	Muncie	Dr. Helen J. Berry, R.N., Head	47306
Indiana State University	Terre Haute	Dr. Dorothy McMullan, R.N., Dean	47809
*Valparaiso University College of Nursing	Valparaiso	Miss Dorothy L. Paulsen, R.N., Ph.D., Dean	46383

ASSOCIATE DEGREE PROGRAMS

Name of School or Department	Location	Director or Head of Department	Zip Code
Indiana University A.A. Nursing Programs:		Mrs. Dorothy Damewood, R.N. Ass't Dean in charge of IU-AA Programs Northwest Campus, Gary	46408
Northwest Campus, 3400 Broadway	Gary	Mrs. Doris R. Blaney, R.N.	46408
Indianapolis Campus, 1812 N. Capitol	Indianapolis	Mrs. Patricia Haase, R.N.	46202
Southeastern Campus, Warder Park	Jeffersonville	Mrs. Helen Baumann, R.N.	47130
Kokomo Campus, 2300 S. Washington	Kokomo	Mrs. Florence Gardner, R.N.	46901
Indiana Central College Dept. of N.	Indianapolis	Miss Virginia R. Sims, R.N.	46227
Purdue University Nursing Sections:			
Ft. Wayne Campus, 2101 E. U.S. 30	Ft. Wayne	Mrs. Doris Mack, R.N., Chairman	46805
Calumet Campus, 2233 -171st Street	Hammond	Mrs. Margaret Klen, R.N., Chairman	46323
Indianapolis Campus, 1021 E. 38 St.	Indianapolis	Mrs. Janet Barber, R.N., Chairman	46205
Lafayette Campus, S. Campus Courts	Lafayette	Miss Ann Larowe, R.N., Chairman	47900
Northwest Campus	Westville	Miss Angela DelVecchio, R.N., Chrm.	46391
Vincennes University	Vincennes	Miss Lee Godare, R.N.	47591

X — not admitting students
* — new program

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THE SPARTANS WERE SO CONCERNED WITH GOOD PHYSIQUE THAT FAT CITIZENS WERE ASSIGNED SPECIAL EXERCISES!

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April, 1968

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School of Practical Nursing Bartholomew Consol. School Corp....Columbus	Mrs. Hazel Miranda, R.N. Instructor- Supervisor
Evansville School of Practical Nursing Evansville-Vanderburgh School Corp..... Evansville	Miss Joyce Stevens, R.N. Director
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River Forest School of Practical Nursing Hobart Township Schools.....Hobart	Miss Donna K. Phillips, R.N. Coord./Director
Indianapolis School of Practical Nursing Adult Education Division Indianapolis Public Schools.....Indianapolis	Mrs. Marguerite F. Klein, R.N. Director
Kokomo School of Practical Nursing Kokomo-Center Twp. Cons. Sch. Corp..... Kokomo	Mrs. Marcia DeWitt, R.N. Director
Lafayette School of Practical Nursing Lafayette School Corporation.....Lafayette	Mrs. A. Katherine Mandell, R.N. Director
Grant School of Practical Nursing Marion Community Schools.....Marion	Mrs. Esther Fritts, R.N. Instructor-Supervisor
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New Albany School of Practical Nursing New Albany-Floyd Co. Cons. Sch. Corp..... New Albany	Mrs. Ann E. Kleine-Kracht, R.N. Director
Richmond School of Practical Nursing Reid Memorial Hospital.....Richmond	Mrs. Doris Mettert, R.N. Director
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Department of Practical Nursing Vincennes University.....Vincennes	Mrs. Marjorie Miller, R.N. Director-Instructor

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2542 Thompson Ave., Fort Wayne 46807

BARTHOLOMEW COUNTY

Bartholomew County Chapter I. A. R. C.
625 Franklin St., Columbus 47201

Opportunity Center, Inc.
1015 3rd St., Columbus 47201

CASS COUNTY

Cass County Council for Mentally Retarded Children, Inc.
306 Barnes Office Bldg., Logansport 46947

CLARK COUNTY

Council for Retarded Children of Clark County, Inc.
P.O. Box 486, Jeffersonville 47130

CLINTON COUNTY

Clinton County Association for Retarded Children, Inc.
1059 McKinely Ave., Frankfort 46041

DELAWARE COUNTY

Delaware County Council for Retarded Children, Inc.
624 S. Jefferson St., Muncie 47305

ELKHART COUNTY

Elkhart County Association for the Retarded, Inc.
1000 W. Hively Ave., Elkhart 46514

FLOYD COUNTY

Floyd County Council for the Retarded, Inc.
Shrader and Abby-Dell Aves., New Albany 47150

FRANKLIN COUNTY

Whitewater Valley Council for Retarded Children, Inc.
625 7th St., Brookville 47012

GRANT COUNTY

Grant County Association for Retarded Children, Inc.
2715 S. Western Ave., Marion 46952

HANCOCK COUNTY

Hancock County Association for Retarded Children, Inc.
P.O. Box 216, Greenfield 46140

HUNTINGTON COUNTY

Huntington County Association for Retarded Children, Inc.
221 Byron St., Huntington 46750

JAY COUNTY

Jay County Association for Retarded Children, Inc.
P. O. Box 1083, Portland 47371

KOSCIUSKO COUNTY

Council for the Retarded of Kosciusko County, Inc.
504 N. Bay Dr., Warsaw 46580

LAKE COUNTY

Lake County Association for Retarded Children, Inc.
2702 W. 35th Ave., Gary 46408

LAPORTE COUNTY

Parents' Council for Retarded Children of LaPorte County, Inc.
3200 S. Cleveland Ave., Michigan City 46330

MADISON COUNTY

Madison County Association for Retarded Children, Inc.
P. O. Box 544, Anderson 46015

MARION COUNTY

Marion County Association for Retarded Children, Inc.
33 E. 39th St., Indianapolis 46205

MARSHALL-STARKE COUNTIES

Marshall-Starke Development Center, Inc.
R. R. 3, Box 66A, Plymouth 46563

MONROE COUNTY

Stonebelt Council for Retarded Children, Inc.
1620 Matlock Rd., Bloomington 47401

PARKE COUNTY

Parke County Association for Parents and Friends of Retarded, Inc.
P. O. Box 96, Rockville 47872

PULASKI COUNTY

Pulaski County Council for Retarded & Exceptional Persons, Inc.
112 W. Main St., Winamac 46996

STEUBEN COUNTY

Community Sheltered Workshop of Steuben County, Inc.
Pleasant Lake 46779

ST. JOSEPH COUNTY

Council for the Retarded of St. Joseph County, Inc.
1108 S. High St., South Bend 46623

SULLIVAN COUNTY

Sullivan County Association for Retarded Children, Inc.
410 Depot St., Sullivan 47882

TIPPECANOE COUNTY

Wabash Center for the Mentally Retarded, Inc.
425 S. 3rd St., Lafayette 47905

VANDERBURGH COUNTY

Evansville Association for Retarded Children, Inc.
2029 Washington Ave., Evansville 47714

WABASH COUNTY

Workshop Enterprises, Inc.
P. O. Box 437, Wabash 46992

WAYNE COUNTY

Wayne County Council for Retarded Children, Inc.
800 Mendleson Dr., Richmond 47374

WHITE COUNTY

Comprehensive Association for Retarded Children, Inc.
Monticello Armory, Box 292, Monticello 47960

* Compiled by the Indiana Department of Mental Health, Division of Mental Retardation, 1315 W. Tenth St., Indianapolis 46207.

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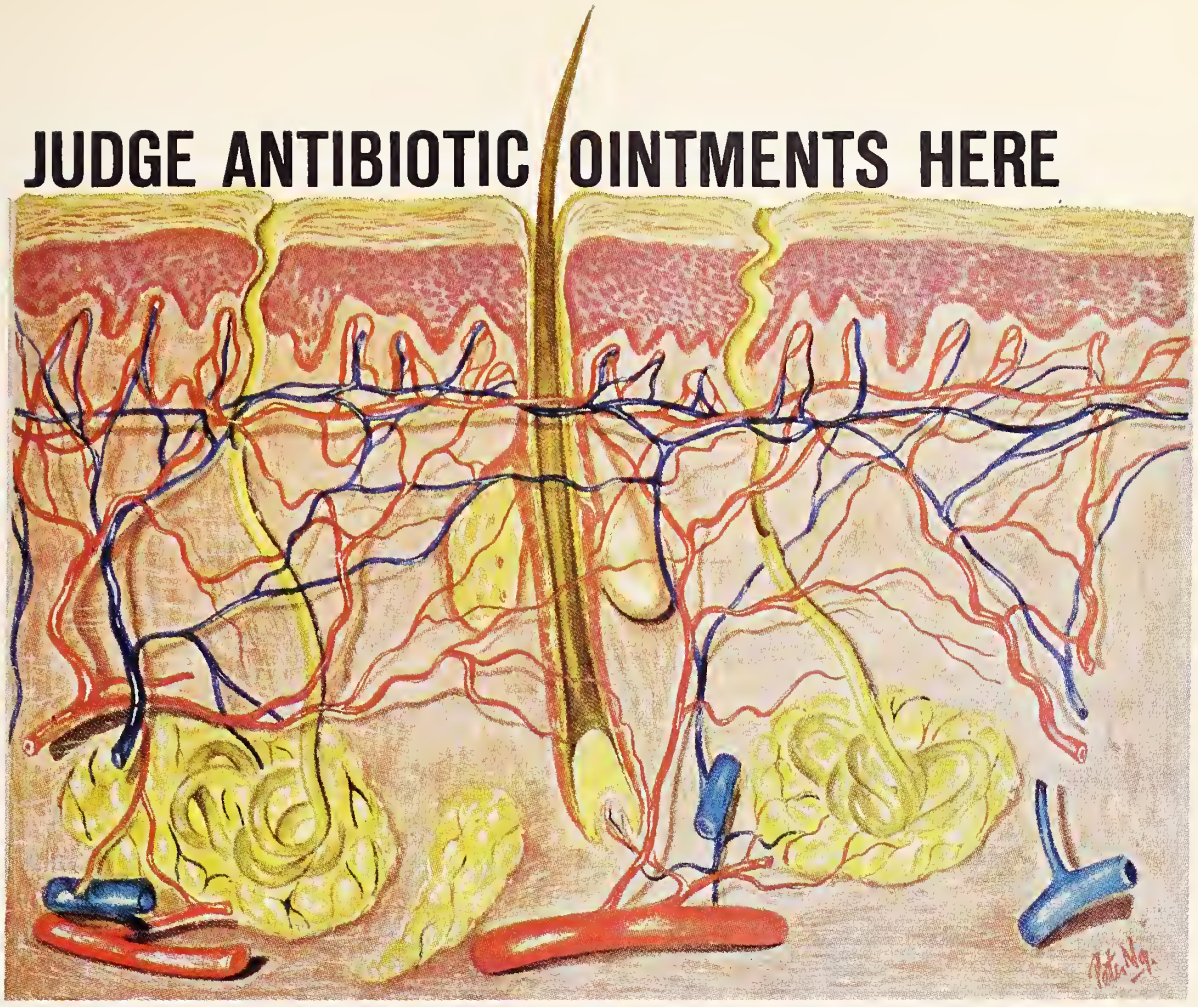

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Caution: As with other antibiotic preparations, prolonged use may result in overgrowth of nonsusceptible organisms and/or fungi. Appropriate measures should be taken if this occurs. Articles in the current medical literature indicate an increase in the prevalence of persons allergic to neomycin. The possibility of such a reaction should be borne in mind.

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New

Therapeutic breakthrough in non-narcotic control of the pain of

Tegretol®
carbamazepine

trigeminal neuralgia

Warning
Fatal cases of aplastic anemia have been reported following treatment with Tegretol. Agranulocytosis, thrombocytopenia and transitory leukopenia have also been observed.
Complete blood and platelet counts should be done prior to and at regular intervals during treatment with the drug (see recommendations under "Important Note and Precautions") to help in the early detection of serious bone marrow injury. Abnormalities in initial blood tests should rule out use of the drug. Also, patients should be made aware of such early toxic signs of a potential hematologic problem as fever, sore throat, mouth ulcers, easy bruising and petechial or purpuric hemorrhage. Should such signs appear, the patient should be advised to discontinue the drug and to report to the physician immediately.

Indication Tegretol is indicated in the treatment of the pain associated with true trigeminal neuralgia. It is not a simple analgesic and should never be administered for relief of trivial facial aches or pains.
Contraindication Do not use in those with a known sensitivity to any tricyclic compound or in those being treated with M.A.O.I. agents. As long a period as possible should elapse before using Tegretol in patients who have been treated with M.A.O.I.'s, with a minimum of 7 days. In such cases, initial dosage should be low and the patient's reaction to gradual increments closely observed.
Important Note and Precautions Familiarity with the clinical symptoms which lead to an accurate diagnosis of true trigeminal neuralgia and with the complete prescribing information, careful patient selection, a thorough examination before treatment and close patient supervision throughout the treatment period are essential to the safe and effective use of this drug.
Where feasible, Tegretol should not be used in conjunction with any potent drug which may increase the possibility of toxic reactions.
In pregnancy, the drug should not be prescribed during the first trimester and thereafter only to patients in whom the clinical situation warrants the potential risk. It should not be administered to nursing mothers.
Patients with increased intraocular pressure should be closely observed during treatment with this drug because of its anticholinergic effect.
Because of the drug's relationship to other tricyclic compounds, the possibility of activation of latent psychosis and, in the elderly, of confusion or agitation, should be considered.
Dizziness and drowsiness may occur and patients should be cautioned about the hazards of operating machinery or automobiles and of engaging in other hazardous tasks.
Use cautiously in patients with a history of coronary artery disease, organic heart disease, congestive failure or liver disease.
Before initiating therapy, the following laboratory procedures should be performed:
1. Complete blood and platelet counts which, if abnormal, should rule out the use of the drug.
2. Baseline evaluations of liver function.
During treatment with Tegretol, the following laboratory procedures should be performed:
1. Complete blood and platelet counts should be done at intervals of one week during the first month of drug treatment, every two weeks during the second and third months, and at monthly intervals thereafter for as long as the patient is taking the drug. A trend toward a decreasing white blood cell count should suggest a dosage reduction and more frequent laboratory and clinical evaluations. Should this trend continue, the drug should be discontinued.
2. Liver function tests must be performed at regular intervals during treatment with this drug since liver damage may occur during therapy. The drug should be discontinued immediately in cases of aggravated liver dysfunction or active liver disease.
3. Periodic eye examinations, including slit-lamp, funduscopy and tonometry, are recommended for patients being treated with this drug since many phenothiazines and related drugs have been shown to cause eye changes.
4. Complete urinalysis and BUN should be done on patients treated with Tegretol because of observed renal dysfunction.
Adverse Reactions Dizziness, drowsiness, unsteadiness on the feet, nausea, vomiting, aplastic anemia, transitory leukopenia, agranulocytosis, eosinophilia, leukocytosis, thrombocytopenia, purpura, abnormalities in liver function tests, cholestatic and hepatocellular jaundice, urinary frequency, acute urinary retention, oliguria with elevated blood pressure, albuminuria, glycosuria, elevated BUN, microscopic deposits in the urine, impotence, disturbances of coordination, confusion, headache, fatigue, blurred vision, transient diplopia and oculomotor disturbances, speech disturbances, abnormal involuntary movements, peripheral neuritis and paresthesias, depression with agitation, talkativeness, nystagmus, tinnitus, paralysis and other symptoms of cerebral arterial insufficiency, pruritic and erythematous rashes, urticaria, Stevens-Johnson syndrome, photosensitivity reactions, alterations in skin pigmentation, exfoliative dermatitis, alopecia, diaphoresis, recurrence of thrombophlebitis, erythema multiforme and nodosum, aggravation of disseminated lupus erythematosus, gastric distress, abdominal pain, diarrhea, constipation, anorexia, dryness of the mouth and pharynx, glossitis, stomatitis, fever, chills, adenopathy, lymphadenopathy, aching joints and muscles, leg cramps, conjunctivitis, left ventricular failure, aggravation of hypertension, hypotension, syncope and collapse, edema, aggravation of coronary artery disease and congestive heart failure. (Whether these cardiovascular effects are drug-related is not known. However, some of these complications have resulted in fatalities.) The necessity for discontinuing the drug should be dictated by the gravity and severity of the adverse reactions.
Dosage and Administration The drug should always be taken with meals, if possible.
Initial: One-half tablet (100 mg.) b.i.d. on the first day. Thereafter, the dose should be increased in one-half tablet (100 mg.) increments every 12 hours until freedom from pain is achieved. To relieve pain, between 200 mg. and 1200 mg. per 24 hours may be necessary.
Maintenance: Initial control of pain can be maintained in most patients with a dose of 400 mg. to 800 mg. daily. Maintenance doses may range between 200 mg. and 1200 mg. daily.
At least once every 3 months during treatment period attempts should be made to discontinue the drug or to reduce the dose to the minimum effective level.
Availability Round, white, single-scored tablets of 200 mg. in bottles of 100 and 1000. (B)46-820-A
For complete details, please see Prescribing Information.

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reserpine 0.25 mg.

when you want to provide the combined benefits of two accepted agents in the treatment of mild to moderate hypertension. (Contraindications: history of mental depression, hypersensitivity, and most cases of severe renal or hepatic diseases.)

when you want to prescribe therapy that is generally well tolerated.

(However, adverse reactions may occur. For a complete listing, please refer to the full prescribing information which is summarized below.)

when your patient wants an easy-to-remember and reasonably priced regimen. (One tablet a day usually costs about a dime.)

Indications: Hypertension. **Contraindications:** History of mental depression, hypersensitivity, and most cases of severe renal or hepatic diseases. **Warning:** With the administration of enteric-coated potassium supplements, which should be used only when adequate dietary supplementation is not practical, the possibility of small-bowel lesions (obstruction, hemorrhage, and perforation) should be kept in mind. Surgery for these lesions has frequently been required and deaths have occurred. Discontinue coated potassium-containing formulations immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occur. Discontinue 1 week before electroshock therapy, and if depression or peptic ulcer occurs. **Use in pregnancy:** Regroton should be used in pregnant patients or in women of childbearing potential only when, in the judgment of a physician, its use is deemed essential to the welfare of the patients; adverse reactions (thrombocytopenia, hyperbilirubinemia, altered carbohydrate metabolism, etc.) are potential problems in the newborn. **Precautions:** Antihypertensive therapy with Regroton should always be initiated cautiously in post-sympathectomy patients and in patients receiving ganglionic blocking agents, other potent antihypertensive drugs, or curare. Reduce dosage of concomitant antihypertensive agents by at least one-half. To avoid hypotension during surgery, discontinue Regroton therapy two weeks prior to elective surgical procedures. In emergency surgery, use, if needed, anticholinergic or adrenergic drugs or other supportive measures as indicated. Because of the possibility of progression of renal damage, periodic kidney function tests are indicated. Discontinue if the BUN rises or liver dysfunction is aggravated. Hepatic coma may be precipitated. Electrolyte imbalance, sodium and/or potassium depletion may occur. If potassium depletion should occur during therapy, Regroton should be discontinued and potassium supplements given, provided the patient does not have marked oliguria. Take particular care in cirrhosis or severe ischemic heart disease and in patients receiving corticosteroids, ACTH, or digitalis. Salt restriction is not recommended. Use cautiously in patients with ulcerative colitis or gallstones (biliary colic may be precipitated). Bronchial asthma may occur in susceptible patients. **Adverse Reactions:** The drug is generally well tolerated. The most frequent side effects are nausea, gastric irritation, vomiting, diarrhea, constipation, muscle cramps, headache, dizziness and acute gout. Other potential side effects include angina pectoris, anxiety, depression, bradycardia and ectopic cardiac rhythms (especially when used with digitalis), drowsiness, dull sensorium, hyperglycemia and glycosuria, hyperuricemia, lassitude, restlessness, transient myopia, impotence or dysuria, orthostatic hypotension which may be potentiated when chlorthalidone is combined with alcohol, barbiturates or narcotics, leukopenia, aplastic anemia, skin rashes, thrombocytopenia, agranulocytosis, nasal stuffiness, increased gastric secretions, nightmare, purpura, urticaria, ecchymosis, weakness, uveitis, optic atrophy and glaucoma, and pruritus. Eruptions and/or flushing of the skin, a reversible paralysis agitans-like syndrome, blurred vision, conjunctival injection, increased susceptibility to colds, dyspnea, weight gain, decreased libido, dryness of the mouth, deafness, anorexia, and pancreatitis when epigastric pain or unexplained G.I. symptoms develop after prolonged administration. Jaundice, xanthopsia, paresthesia, photosensitization and necrotizing angiitis are possible. **Average Dosage:** One tablet daily with breakfast. **Availability:** Pink, single-scored tablets in bottles of 100 and 1000. **For details, see complete Prescribing Information.** (B)46-600-B

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Professional Medical and Allied Organizations

Due to the additional content of the Yearbook, cut-off date for changes in the following groups was in April. Some have changed in the interim. However, it is felt that where officers have changed, a query to those listed here will put interested persons in contact with such groups.

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* Dr. Wilbur will be installed at the June meeting of the AMA. The President-Elect had not been named at the time this issue went to press. His election will be announced in the July *Journal*.

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April 1, 1968

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Precautions: Some individuals may experience drowsiness, anorexia, and slight gastric distress. If excessive drowsiness occurs, it may be necessary to increase the interval between doses. Persons on full dosage should not operate any vehicle. Use may result in overgrowth of nonsusceptible organisms. If infections appear during therapy, appropriate measures should be taken. Infections caused by beta-hemolytic streptococci should be treated for at least 10 full days to help prevent rheumatic fever or acute glomerulonephritis. Use of tetracycline during tooth development may cause discoloration of teeth.
Adverse Reactions: Gastrointestinal—anorexia, nausea, vomiting, diarrhea, stomatitis, glossitis, enterocolitis, pruritus ani. Skin—maculopapular and erythematous rashes (a case of exfoliative dermatitis has been reported); photosensitivity; onycholysis and discoloration of nails (rare). Kidney—rise in BUN, apparently dose related. Hypersensitivity reactions—urticaria, angioneurotic edema, anaphylaxis. In young infants, bulging fontanels following full therapeutic dosage has been reported. This has disappeared rapidly when drug was discontinued. Teeth—dental staining (yellow-brown) in children of mothers given tetracycline during the latter half of pregnancy and in children given the drug during the neonatal period, infancy, and early childhood. Enamel hypoplasia has been seen in a few children. Blood—anemia, thrombocytopenic purpura, neutropenia, eosinophilia. Liver—cholestasis (rare), usually at high dosage. If adverse reaction or idiosyncrasy occurs, discontinue medication and institute appropriate therapy.

Lederle

350-8

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**Memorial Hospital of Floyd County.
1850 State St., New Albany.
Mr. William I. Fender, Jr., Adm.
Beds: 215

**Southern Indiana Tuberculosis Hospital.
New Albany.
William D. May, M.D., Supt.
Beds: 150

FULTON COUNTY

**Woodlawn Hospital.
624 Pontiac St., Rochester.
Mr. Harold E. Hill, Adm.
Beds: 61

GIBSON COUNTY

**Gibson General Hospital.
1808 Sherman Drive, Princeton.
Mr. Herman A. Kohlman, Adm.
Beds: 73

GRANT COUNTY

**Marion General Hospital.
Wabash and Euclid, Marion.
Mr. John W. Green, Adm.
Beds: 244

GREENE COUNTY

**Freeman Greene County Hospital.
410 "A" St., N.E., Linton.
Mr. Malcom Clippinger, Adm.
Beds: 73

HAMILTON COUNTY

**Riverview Hospital.
395 Westfield Rd., Noblesville.
Mr. Peter R. Mariani, Adm.
Beds: 96

HANCOCK COUNTY

**Hancock County Memorial Hospital.
800 North State Street, Greenfield.
Mr. C. L. Morris, Adm.
Beds: 83

HARRISON COUNTY

**Harrison County Hospital.
R. R. 4, Box 33 H, Corydon.
Mr. John R. Webb, Adm.
Beds: 49

HENDRICKS COUNTY

**Hendricks County Hospital.
1000 E. Main St., Danville.
Mr. Harry T. Haver, Jr., Adm.
Beds: 70

HENRY COUNTY

**Henry County Hospital.
1000 N. 16th, New Castle.
Mr. Darryl E. Wahler, Adm.
Beds: 194

HOWARD COUNTY

**Howard Community Hospital.
3500 S. LaFountain St., Kokomo.
Mr. George R. Banjak, Adm.
Beds: 148

**St. Joseph Memorial Hospital.
1907 W. Sycamore St., Kokomo.
Mr. Robert D. Jacobs, Adm.
Beds: 223

HUNTINGTON COUNTY

**Huntington County Hospital.
1215 Etna Ave., Huntington.
Mr. Carl S. Smyth, Adm.
Beds: 100

JACKSON COUNTY

**Jackson County Schneck Memorial Hospital.
Bruce and Poplar St., Seymour.
Mr. Ralph W. Keyes, Adm.
Beds: 84

JASPER COUNTY

**Jasper County Hospital.
E. Grace St., Rensselaer.
Mrs. Ruth Schumaker, R.N., Adm.
Beds: 60

JAY COUNTY

**Jay County Hospital.
505 W. Arch St., Portland.
Mr. Warren Phemister, Adm.
Beds: 100

JEFFERSON COUNTY

**The King's Daughters' Hospital.
112 Presbyterian Ave., Madison.
Mr. W. A. McAlexander, Adm.
Beds: 109

JOHNSON COUNTY

**Indiana Masonic Home Hospital.
690 State St., Franklin.
Mr. Roy Turner, Jr., Supt.
Beds: 197

**Johnson County Memorial Hospital.
P.O. Box 236, Franklin.
Mr. George P. Goshorn, Adm.
Beds: 128

KNOX COUNTY

**Good Samaritan Hospital.
410 S. 7th St., Vincennes.
Mr. Charles Arends, Adm.
Beds: 220

Hillcrest Tuberculosis Hospital.
Vincennes.
J. Frank W. Stewart, M.D., Supt.
Beds: 47

KOSCIUSKO COUNTY

**Murphy Medical Center.
101 W. Winona Ave., Warsaw.
Mrs. Hazel J. Murphy, Dir.
Beds: 68

LAGRANGE COUNTY

**LaGrange County Hospital.
R.R. 1, LaGrange.
Mr. Lynn L. Landis, Adm.
Beds: 34

LAKE COUNTY

**James O. Parramore Hospital.
106 Road O, Crown Point.
Norman J. Wilson, M.D., Med. Dir. & Supt.
Beds: 90

**Our Lady of Mercy Hospital.
U. S. Highway 30, Dyer.
Sister M. Frances Xavier, Adm.
Beds: 200

**St. Catherine Hospital of East Chicago.
4321 Fir St., East Chicago.
Sister M. Martine, R.N., Adm.
Beds: 371

**St. Margaret Hospital.
25 Douglas St., Hammond.
Sister Rita, Adm.
Beds: 395

**St. Mary Mercy Hospital of Gary, Inc.
540 Tyler St., Gary.
Paul C. Bellendorf, Adm.
Beds: 296

**The Methodist Hospital of Gary, Inc.
1600 W. 6th Ave., Gary.
Everett A. Johnson, Ph.D., Adm.
Beds: 359

LAPORTE COUNTY

**LaPorte Hospital, Inc.
205 "E" St., LaPorte.
Mr. David D. Kramer, Adm.
Beds: 156

**Memorial Hospital of Michigan City.
5th and Pine Sts., Michigan City.
Mr. Byron N. Whitford, Adm.
Beds: 72

**St. Anthony Hospital.
Wabash and Ann Sts., Michigan City.
Sister M. Verenis, Adm.
Beds: 100

**Walters Hospital, Inc.
3714 S. Franklin St., Michigan City.
Mr. William R. Nusz, Adm.
Beds: 90

LAWRENCE COUNTY

**Dunn Memorial Hospital.
1616 23rd St., Bedford.
Mrs. Helen Boyer, R.N., Supt.
Beds: 97

MADISON COUNTY

**Community Hospital of Anderson and Madison County.
1515 N. Madison Ave., Anderson.
Mr. Louis H. Furlong, Adm.
Beds: 242

**Mercy Hospital, Inc.
1331 South "A" St., Elwood.
Sister M. Andrea, R.N., Adm.
Mr. Edward Topek, Acting Adm.
Beds: 50

**St. John's Hickey Memorial Hospital.
2115 Jackson, Anderson.
Sister M. Theodora, Adm.
Beds: 229

MARION COUNTY

**Community Hospital of Indianapolis, Inc.
1500 N. Ritter Ave., Indianapolis.
Mr. W. C. McLin, Pres.
Beds: 586

**Indiana University Medical Center Hospitals.
1100 W. Michigan St., Indianapolis.
Mr. Elton T. Ridley, Dir. of Hosps.
Beds: 486

**Marion County General Hospital.
960 Locke St., Indianapolis.
Arvine G. Popplewell, M.D., Dir. of Hosps.
Beds: 547

**Methodist Hospital of Indiana, Inc.
1604 N. Capitol Ave., Indianapolis.
Mr. Jack A. L. Hahn, Exec. Dir.
Beds: 870

**St. Francis Hospital.
101 N. Seventeenth St., Beech Grove.
Sister M. Sponsaria, Adm.
Beds: 305

**St. Vincent's Hospital.
120 W. Fall Creek Parkway, Indianapolis.
Sister Carlos McDonnell, Adm.
Beds: 315

**University Heights Hospital, Inc.
3350 Carson Ave., Indianapolis.
Beds: 122

**Winona Memorial Hospital.
3202 N. Meridian St., Indianapolis.
Mr. John R. Gass, Jr., Adm.
Beds: 315

MARSHALL COUNTY

**Community Hospital of German Township, Inc.
411 W. Grant St., Bremen.
Mr. Robert Moat, Adm.
Beds: 18

**Marshall County Parkview Hospital.
1401 N. Michigan St., Plymouth.
Miss Lela Diefenbaugh, R.N., Adm.
Beds: 67

MIAMI COUNTY

**Dukes Memorial Hospital.
275 West 12th St., Peru.
Mr. Robert L. Allman, Adm.
Beds: 80

MONROE COUNTY

**Bloomington Hospital.
605-625 W. Second St., Bloomington.
Mr. Roland E. Kohr, Adm.
Beds: 194

MONTGOMERY COUNTY

**Montgomery County Culver Union Hospital.
308 Binford St., Crawfordsville.
Mr. William Stoltz, Adm.
Beds: 103

MORGAN COUNTY

**Kendrick Memorial Hospital, Inc.
130 N. Indiana St., Mooresville.
William Kendrick, M.D., Adm.
Beds: 28

Continued

Continued

**Morgan County Memorial Hospital.
St. Rd. 252, Martinsville.
Mr. Ernest Baughman, Adm.
Beds: 80

NEWTON COUNTY

**George Ade Memorial Hospital.
Brook, Ind.
Mrs. Helen M. Borman, Adm.
Beds: 40

NOBLE COUNTY

**McCray Memorial Hospital.
South Park Dr., Kendallville.
Mr. Ronald N. Strand, Adm.
Beds: 72

ORANGE COUNTY

**Orange County Hospital.
Sandy Hook Road, Paoli.
Miss Kathryn Landers, R.N., Adm.
Beds: 36

PARKE COUNTY

**Indiana State Hospital for Chest Diseases.
R.R. 1, Rockville.
Mr. William D. Murchie, Act. Supt.
Beds: 120

PERRY COUNTY

**Perry County Memorial Hospital.
Star Route, Tell City.
Mr. Richard Morris, Adm.
Beds: 58

PORTER COUNTY

**Porter Memorial Hospital.
814 LaPorte Ave., Valparaiso.
Mr. Arthur S. Malasto, Adm.
Beds: 230

PULASKI COUNTY

**Pulaski Memorial Hospital.
State Road 14, East, Winamac.
Mr. Theodore H. Kittell, Adm.
Beds: 37

PUTNAM COUNTY

**Putnam County Hospital.
330 Greenwood Ave., Greencastle.
Mr. Frank C. Baker, Adm.
Beds: 79

RANDOLPH COUNTY

**Randolph County Hospital.
Greenville Ave., Winchester.
Mr. Lacy C. Barnett, Adm.
Beds: 60

**Union City Memorial Hospital Association.
900 N. Columbia St., Union City.
Mr. Elmer M. Olson, Adm.
Beds: 50

RIPLEY COUNTY

**Margaret Mary Community Hospital.
R. R. 3, Batesville.
Mr. John G. Cecil, Adm.
Beds: 55

RUSH COUNTY

**Rush Memorial Hospital.
1300 N. Main St., Rushville.
Mr. Edward Kucinski, Adm.
Beds: 49

SCOTT COUNTY

**Scott County Memorial Hospital.
Highway 31 North, Scottsburg.
Mr. M. Kenneth Mumford, Adm.
Beds: 35

SHELBY COUNTY

**William S. Major Hospital.
150 W. Washington St., Shelbyville.
Mr. Jack R. Martin, Adm.
Beds: 110

ST. JOSEPH COUNTY

**Healthwin Hospital.
20531 West Darden Road, South Bend.
E. W. Custer, M.D., Supt.
Beds: 130

**Memorial Hospital of South Bend.
615 N. Michigan St., South Bend.
Mr. Richard W. Trenkner, Adm.
Beds: 368

**St. Joseph Hospital.
215 W. 4th St., Mishawaka.
Sister M. Maureen, Adm.
Beds: 100

**St. Joseph's Hospital.
811 E. Madison St., South Bend.
Sister M. Cecilian, Adm.
Beds: 344

**South Bend Osteopathic Hospital.
2515 E. Jefferson Blvd., South Bend.
A. F. Kull, D.O., Adm.
Beds: 105

STARKE COUNTY

**Starke Memorial Hospital.
102 E. Culver Road, Knox.
Mr. Raymond Mullins, Adm.
Beds: 19

STEUBEN COUNTY

**Cameron Memorial Hospitals, Inc.
416 E. Maumee, Angola.
Mr. F. W. Schwerin, Adm.
Beds: 51

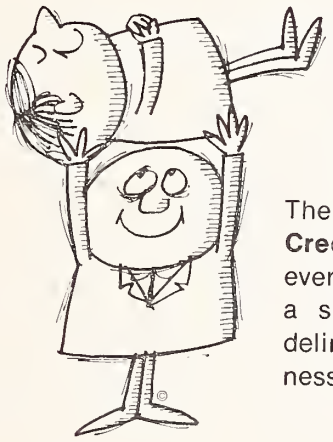
**Elmhurst Hospital, Inc.
909 W. Maumee, Angola.
Mr. Thomas R. Alwood, Adm.
Beds: 29

SULLIVAN COUNTY

**Mary Sherman Hospital.
320 N. Section St., Sullivan.
Mr. William H. Sluder, Adm.
Beds: 104

Continued

NEED A LIFT WITH YOUR P. D. A.? *(Past Due Accounts)*



The member of the **Associated Credit Bureau** in your area helps everyone! Past Due Accounts are a specialty with us. Collecting delinquent accounts is our business. . .it has been for years!

EXPERIENCE . . . PLUS . . . the listing of P.D.A. on the individual's master credit record in the Credit Bureau produce successful collections. No other firm can offer this unique method of collecting your P.D.A. (Past Due Accounts).

FOR A LIFT WITH P.D.A. . . .

CALL US TODAY

Associated Credit Bureaus

OF INDIANA

affiliated with

ASSOCIATED CREDIT BUREAUS OF AMERICA

Contact your local ASSOCIATED CREDIT BUREAU OF INDIANA *member*

Start your program of insurance protection today, while premiums are low with a Term-Life Plan that meets today's needs with a protective look towards the future.

Professional Life & Casualty Company which has made a career of serving the life and disability insurance needs of members of the medical community introduces its new Guaranteed Convertible Term-Life Plan developed for students, interns and residents who are commencing a career in the medical profession.

This plan is designed for maximum protection with a nominal premium you can afford, prior to your productive earning years.

The low annual premium provides a level amount of life insurance during a period when you may have real need for the financial protection and benefit of your family and dependents or of anyone financing your education.

ANNUAL DIVIDENDS

This is a 'participating plan' which means you participate in annual dividends to policyholders. You may elect to have your Annual Dividends *paid in cash*, applied to reduce your annual premium or accumulated at interest (see item 9 of application).

LOW, FIXED ANNUAL PREMIUM

Your Annual Premium is based on your age at issue (nearest birthday) and remains the same for the duration of the policy. *It cannot be changed by the Company.*

NON-DECREASING COVERAGE

You may select either $10,000 or $20,000 of life insurance. Your insurance will continue for the amount and term you select (10 year or 15 year term period) and *cannot be reduced or terminated by the Company.*

GUARANTEED CONVERSION

Your term policy may be converted to our Participating Whole Life Plan at any time during the policy period *without any restrictions or limitations.*

THE IMPORTANCE OF CONVERSION TO PLC's PARTICIPATING WHOLE LIFE PLAN

Your Term Plan guarantees you the right to obtain PLC's participating Whole Life Plan which has been rated the No. 1 "low net cost" plan by a nationwide statistical service.

The rating was based on comparisons with similar plans issued by the 25 largest U. S. life insurance companies as well as with similar plans issued by the 100 lowest 'net cost' life insurers in the nation.

Pick your own plan and compare! Prove it to yourself that here is a maximum protection plan you need . . . and you can afford.

GUARANTEED CONVERTIBLE TERM INSURANCE
Premiums for $10,000 POLICY

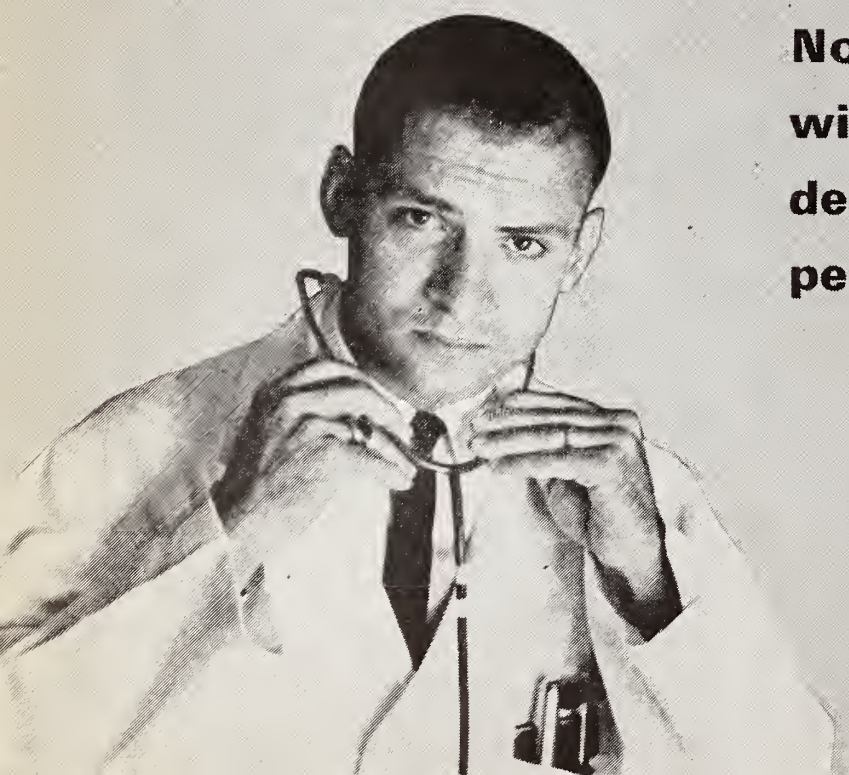
Age At Issue (Nearest Birthday)	10 YEAR TERM Annual	10 YEAR TERM Semi-Annual	15 YEAR TERM Annual	15 YEAR TERM Semi-Annual
21	$33.00	$17.00	$34.00	$17.50
22	33.50	17.50	34.50	18.00
23	34.00	17.50	35.00	18.00
24	34.50	18.00	35.50	18.50
25	35.00	18.00	36.00	18.50
26	35.50	18.50	36.50	19.00
27	36.00	18.50	37.50	19.50
28	36.50	19.00	38.50	20.00
29	37.00	19.50	40.00	21.00
30	37.50	19.50	42.00	22.00

—Premiums for $20,000 Policy are double the above rates
—Premiums for Ages not shown will be provided on request

Professional Life & Casualty Company

HOME OFFICE: 720 N. Michigan Ave., Chicago, Illinois 60611

CHAIRMAN—Edwin S. Hamilton, M.D.
PRESIDENT—Edward L. Compere, M.D.
GENERAL MANAGER & ACTUARY—Norman R. B. King
ASSOC. MED. DIR.—E. Clinton Texter, Jr., M.D.



Now we have a Term-Life Plan with premiums you can afford designed for conversion to permanent life protection.

APPROVED HOSPITALS

Continued

TIPPECANOE COUNTY

****Lafayette Home Hospital, Inc.**
2400 E. South St., Lafayette.
Mr. Franklin E. Simek, Adm.
Beds: 248

Purdue University Student Health Center.
Purdue University.
West Lafayette, Ind.
Loyal W. Combs, M.D., Dir.
Beds: 74

****St. Elizabeth Hospital.**
1501 Hartford Street, Lafayette.
Sister M. Amelia, R.N., Adm.
Beds: 341

TIPTON COUNTY

****Tipton County Memorial Hospital.**
1032 South Main Street, Tipton.
Mr. James C. Talley, Adm.
Beds: 71

VANDERBURGH COUNTY

****Deaconess Hospital, Inc.**
600-700 Mary St., Evansville.
Mr. David A. Johnson, Adm.
Beds: 520

****St. Mary's Hospital, Inc.**
3700 Washington Ave., Evansville.
Sister Juliana Beuerlein, Adm.
Beds: 402

****Welborn Memorial Baptist Hospital, Inc.**
412 S.E. 4th St., Evansville.
Mr. Nolan R. Lackey, Pres.
Beds: 363

VERMILLION COUNTY

****Vermillion County Hospital.**
801 S. Main St., Clinton.
Miss Beulah Fisher, R.N., Adm.
Beds: 72

VIGO COUNTY

****St. Anthony Hospital.**
1021 S. 6th St., Terre Haute.
Sister M. Henrita, Adm.
Beds: 300

****Union Hospital, Inc.**
1606 N. 7th St., Terre Haute.
Mr. Joseph B. Mackey, Adm.
Beds: 258

WABASH COUNTY

****Wabash County Hospital.**
670 N. East St., Wabash.
Mr. Gerald E. Almond, Adm.
Beds: 120

Continued

APPLICATION FOR TERM LIFE INSURANCE
to PROFESSIONAL LIFE & CASUALTY COMPANY, CHICAGO, ILLINOIS

1. Full Name of Applicant_____

Date of Birth_____ (Mo. Day Year) Place of Birth_____ (City State)

2. Height_____ Weight_____ 3. ☐ Male, ☐ Female 4. ☐ Married, ☐ Single, ☐ Divorced, ☐ Separated

5. PERMANENT MAILING ADDRESS:_____ (Street Address) _____ (City) _____ (State) _____ (Zip) (_____) (No. of Yrs.)

6. Medical School:_____ (Name) _____ (City & State)

Date Entered Medical School_____

7. AMOUNT OF INSURANCE: 10 YEAR CONVERTIBLE* TERM ☐ $10,000.00 ☐ $20,000.00 OR 15 YEAR CONVERTIBLE* TERM ☐ $10,000.00 ☐ $20,000.00

**Convertible to participating Whole Life Insurance at any time prior to the end of the Term period.*

8. PREMIUMS PAYABLE: ☐ Annually ☐ Semi-Annually ☐ Other_____ Premium: $_____

9. DISPOSITION OF ANNUAL DIVIDENDS: ☐ Pay in Cash ☐ Accumulate at Interest ☐ Apply to Premium

10. Beneficiary_____ (Name In Full) _____ (Relationship)

11. Do you know of any impairment now existing in your health or physical condition? Yes_____ No_____ If "yes" give particulars_____

12. Have you consulted a physician for illness during the past three years? Yes_____ No_____ If "yes" give particulars_____

I HEREBY APPLY for insurance described above and agree to pay premiums therefor at the rate shown above.
INFORMATION in this application is given to obtain this insurance and is true and complete to the best of my knowledge and belief. The Company shall incur no obligation because of this application unless and until it is approved by the Company and the first premium is paid in full while my health or other conditions affecting my insurability are as described in the application.

Date_____ _____ Signature of Applicant

_____ Licensed Agent

Form No. L-168-67A

Fill out and mail to Professional Life & Casualty Co., 720 N. Michigan Ave., Chicago, Ill. 60611

WARREN COUNTY

**Community Hospital.
412 N. Monroe St., Williamsport.
Mr. George H. James, Jr., Adm.
Beds: 29

WASHINGTON COUNTY

**Washington County Memorial Hospital.
911 N. Shelby Street, Salem.
Mr. John R. Webb, Adm.
Beds: 65

WAYNE COUNTY

**Reid Memorial Hospital.
Spring Grove, Richmond.
Mr. M. Ray Ferguson, Adm.
Beds: 333

WELLS COUNTY

**Clinic Hospital.
309 S. Main St., Bluffton.
Mr. Ronald M. Adams, Adm.
Beds: 164

**Wells County Hospital.
1116 S. Main St., Bluffton.
Mrs. Dorothy Elett Radkey, R.N., Adm.
Beds: 50

WHITE COUNTY

**White County Memorial Hospital.
1101 O'Conner Blvd., Monticello.
Mr. Richard J. Reichow, Adm.
Beds: 48

WHITLEY COUNTY

**Memorial Hospital.
215 E. Van Buren St., Columbia City.
Mr. Carl F. Arntson, Adm.
Beds: 21

**Whitley County Memorial Hospital.
353 N. Oak St., Columbia City.
Mr. Robert L. McConnell, Adm.
Beds: 84

Approved Mental Hospitals in Indiana

See State-Operated Mental Institutions, Page 862.

**Clearview Hospital.
Kratzville Road, Evansville.
Beds: 40

**Wabash Valley Hospital.
West Lafayette.
Mr. Donald R. Kinzer, Adm.
Beds: 44

AMERICAN BOARD FOR CERTIFICATION OF THE PROSTHETIC AND ORTHOTIC APPLIANCE INDUSTRY, INC.
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INDIANA BRACE, INC.

AMERICAN ORTHOTICS AND PROSTHETICS ASS'N. AOPA

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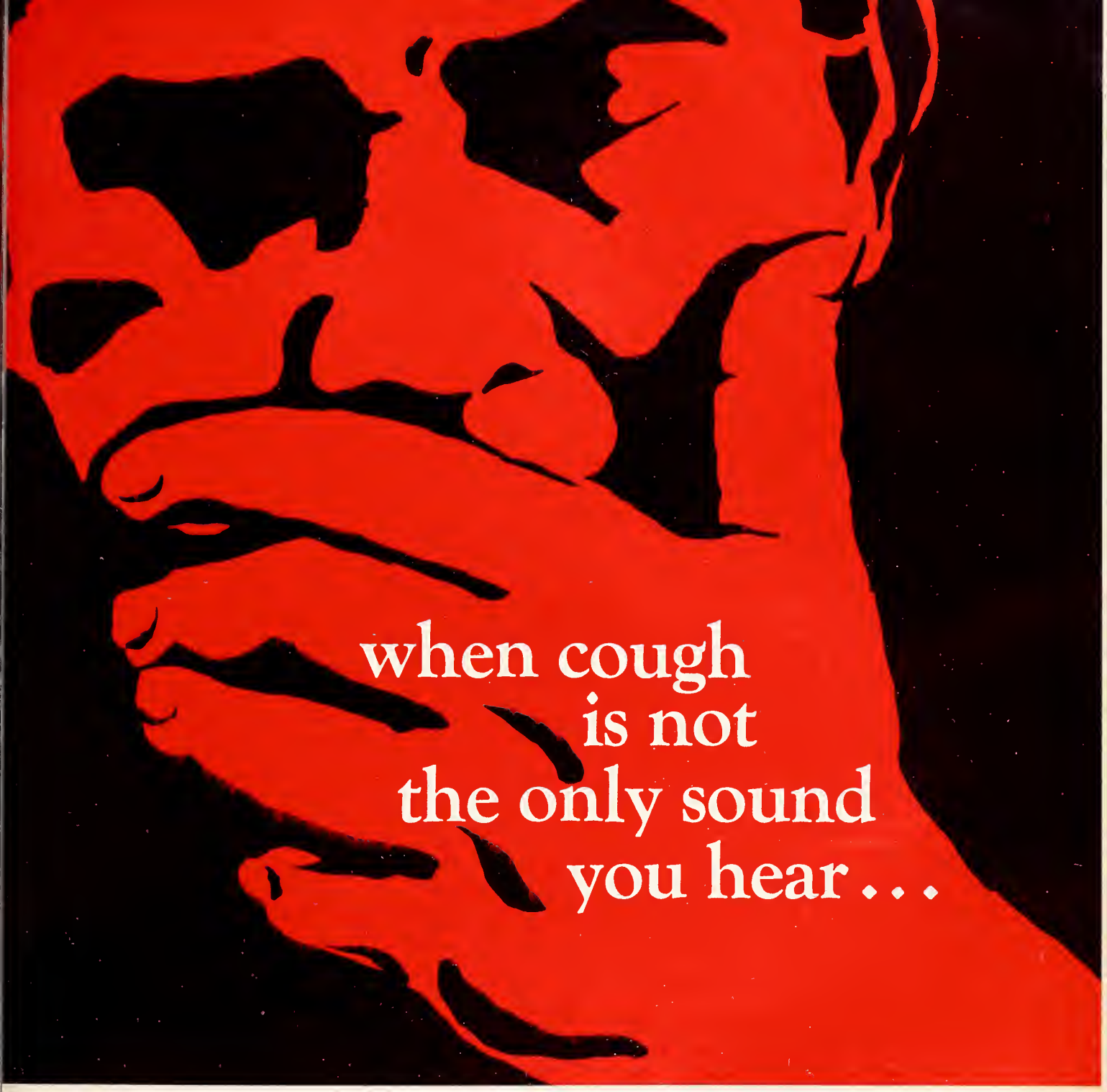

OMNI-TUSS® b.i.d.

. . . **because** OMNI-TUSS is indicated for cough associated with upper respiratory tract infections, bronchitis, bronchiectasis, bronchial asthma, emphysema, sinusitis and rhinitis, hay fever, or other allergic conditions. Any of these conditions may exhibit the general symptom syndrome—coughing, wheezing, bronchospasm, and tenacious mucus—which may benefit from the antitussive, bronchodilative, antihistaminic, and expectorant action of Omni-Tuss.

The therapeutic usefulness of Omni-Tuss is enhanced by a unique resin complex formulation providing the clinically desirable advantages of: (1) uniform drug availability throughout an extended period, (2) 8 to 12 hours of symptomatic control, (3) minimal dosage requirement, (4) minimal side effects.

Economical, efficient **b.i.d.** dosage—extremely well-tolerated by children, 6-12, and adults.

'Omni Tuss' Suspension: Each teaspoonful (5 cc.) contains 10 mg. codeine (Warning: May be habit-forming), 5 mg. phenyltoloxamine, 3 mg. chlorpheniramine, 25 mg. ephedrine, all as cation exchange resin complexes of sulfonated polystyrene, and 20 mg. guaiacol carbonate.

Available on prescription only. Class X exempt narcotic. Permissible on oral prescription.

Dosage: *Adults:* 1 teaspoonful (5 cc.) q12h.
Children (6-12 *years*): ½ teaspoonful q12h.

Side Effects: Minimal, but when encountered may include jitteriness, nausea, drying of mouth, insomnia, constipation, which disappear upon adjustment of the dose or discontinuance of treatment.

Precautions and Contraindications: For complete detailed information, refer to package insert or official brochure.

Strasenburgh

Strasenburgh Laboratories Division
Wallace & Tiernan Inc., Rochester, N.Y.

INDIANA STATE BOARD OF HEALTH

MONTHY REPORT—April, 1968

Disease	Apr. 1968	Mar. 1968	Feb. 1968	Apr. 1967	Apr. 1966
Animal Bites	959	755	473	1055	844
Chickenpox	491	667	611	341	481
Conjunctivitis	129	133	79	109	134
Diphtheria	0	0	0	0	0
Dysentery, Unspecified	82	120	86	34	35
Gonorrhea	427	579	377	303	368
Impetigo	67	99	94	92	68
Infectious Hepatitis	31	47	43	75	34
Infectious Mononucleosis	101	153	86	84	98
Influenza	680	1719	2805	1050	1694
Measles					
Rubeola	80	150	79	122	901
Rubella	133	103	67	135	555
Meningitis, Meningococcal	1	6	6	5	12
Meningitis, Other	1	9	2	2	2
Mumps	655	822	556	1008	402
Pertussis (Whooping Cough)	41	16	6	21	9
Pneumonia	185	308	345	333	548
Poliomyelitis	0	0	0	0	0
Streptococcal Infections	826	1185	897	744	1178
Syphilis					
Primary & Secondary	45	22	27	8	4
All Other Syphilis	97	142	81	87	94
Tinea Capitis	10	17	19	9	13
Tuberculosis (Active)	68	98	81	96	59

in the treatment of
IMPOTENCE

Android®
(thyroid-androgen) TABLETS

*Effectiveness confirmed by another double blind study**

1. SUMMARY
ANDROID — GOOD TO EXCELLENT 75%
PLACEBO — 20%

2. Forty cases reported.
3. Cites synergism between androgen and thyroid.
4. No side effects in patients treated.
5. Alleviation of fatigue noted
6. Case histories on 4 patients.
7. Although psychotherapy still needed, role of chemotherapy cannot be disputed.

**"Sexual impotence treatment with methyl testosterone – thyroid (ANDROID) a double blind study" – Montesano, Evangelista: Clinical Medicine, April 1966.*

CONTRAINDICATIONS—Methyl testosterone is not to be used in malignancy of reproductive organs in male, coronary heart disease. Thyroid is not to be used in heart disease, hypertension unless the metabolic rate is low.

Choice of **4** *strengths*

Android
Each yellow tablet contains:
Methyl Testosterone . . 2.5 mg.
Thyroid Ext. (1/6 gr.) . . 10 mg.
Glutamic Acid . . . . . 50 mg.
Thiamine HCL . . . . . 10 mg.
Dose: 1 tablet 3 times daily.
Available: Bottles of 100, 500, 1000.

Android-HP
HIGH POTENCY
Each red tablet contains:
Methyl Testosterone . . 5.0 mg.
Thyroid Ext. (½ gr.) . . . 30 mg.
Glutamic Acid . . . . . 50 mg.
Thiamine HCL . . . . . 10 mg.
Dose: 1 tablet 3 times daily.
Available: Bottles of 100, 500, 1000.

Android-X
EXTRA HIGH POTENCY
Each orange tablet contains:
Methyl Testosterone . 12.5 mg.
Thyroid Ext. (1 gr.) . . . . 64 mg.
Glutamic Acid . . . . . 50 mg.
Thiamine HCL . . . . . 10 mg.
Dose: 1 or 2 tablets daily.
Available: Bottles of 60, 500.

Android-Plus
WITH HIGH POTENCY B-COMPLEX AND VITAMIN C
Each white tablet contains:
Methyl Testosterone . . 2.5 mg.
Thyroid Ext. (¼ gr.) . . . 15 mg.
Ascorbic Acid (Vit. C) . 250 mg.
Thiamine HCL . . . . . 25 mg.
Glutamic Acid . . . . . 100 mg.
Pyridoxine HCL . . . . . 5 mg.
Niacinamide . . . . . 75 mg.
Calcium Pantothenate . 10 mg.
Vitamin B-12 . . . . . 2.5 mcg.
Riboflavin . . . . . 5 mg.
Dose: 2 tablet twice daily.
Available: Bottles of 60, 500.

Write for literature and samples:
BROWN THE BROWN PHARMACEUTICAL CO.
2500 W. 6th St., Los Angeles, Calif. 90057

REFER TO PDR

also available with ESTROGEN
Android-E
Each Tablet Contains:
Methyl Testosterone . . . . . 2.5 mg.
Ethinyl Estradiol . . . . . 0.02 mg.
Thyroid Ext. (1/6 gr.) . . . . . 10 mg.
Thiamine Hydrochloride . . . . 10 mg.
Glutamic Acid . . . . . 50 mg.

INDICATIONS: Advantage is taken of the anabolic action of ANDROID without its virilizing effect. Estrogen balances the androgen—only steroid effect remains. Geriatrics, post operative and debilitating disease, osteoporosis. **DOSE:** One tablet t.i.d. Female patients should have a rest period 5 to 7 days after 21 days of medication. **SIDE EFFECTS:** In the female, excessive dosage may produce virilizing effects of most androgens: hoarseness, hirsutism, enlarged clitoris. Symptoms can be avoided by keeping the dosage below 300 mg. of testosterone per month. **CONTRA-INDICATIONS:** See Android. Ethinyl estradiol is not to be used in latent malignancy of reproductive organs or mammary glands.

Licensed Nursing Homes In Indiana

May, 1968

****INDICATES FEDERALLY APPROVED EXTENDED CARE FACILITY**

ADAMS COUNTY

Berne Nursing Home
906 W. Main St., Berne 46711
Pauline Hostetler, L.P.N., Adm.

Cooper Rest Home
111 North Third St.,
Decatur 46733
Myron L. Bradburn, Adm.

ALLEN COUNTY

****Allen County Nursing Home**
12101 Lima Rd., R. R. 13,
Ft. Wayne 46808
Thomas A. Katsanis, Adm.

Crow's Haven Nursing Home
2440 Bowser Ave.,
Fort Wayne 46803
Lyle B. Crow, Adm.

Glenacres, Inc.
3420 E. State St.,
Fort Wayne 46805
Robert N. Lewis, Adm.

Hope Manor
611 W. Wayne St.,
Fort Wayne 46802
Charles W. and Ruby J. Setser, Adms.

Lawton Nursing Home, Inc.
1649 Spy Run Ave.,
Fort Wayne 46805
Walter C. Buuck, L.P.N., Adm.

****Lutheran Homes, Inc.**
6701 S. Anthony Blvd., Ft. Wayne 46806
Fred L. Nieno, Adm.

****Parnell Park Nursing Home**
3811 Parnell Ave.,
Ft. Wayne 46805
Paul F. Roembke, Adm.

Saint Anne Home
1900 Randalia Dr., Ft. Wayne 46805
Donald F. Kopis, Adm.

The Towne House
2209 St. Joe Center Rd., Ft. Wayne 46805
Marvin Isley, Adm.

Twin Maples Sanatarium
734 W. Washington Blvd., Fort Wayne 46804
Laszlo and Elizabeth Szegedy, Adms.

BARTHOLOMEW COUNTY

Bartholomew County Home
2525 Illinois, Columbus 47201
Mildred Drake, Adm.

****Columbus Convalescent Center**
2100 Midway St.,
Columbus 47201
William L. Casady, Adm.

Ken-Joy Convalescent Home
Maple Street, Hope 47246
Arthur L. Miller, Adm.

Luther Nursing Home
837 Fourth St., Columbus 47201
Mary Luther, Adm.

Shady Nook Rest Home
R. R. 8, Columbus 47201
Louanna Niemoeller, Adm.

The Four Seasons Home
1901 Taylor Rd., Columbus 47201
Willis J. Gregson, Adm.

BENTON COUNTY

Benton County Home
R. R. 1, Oxford 47971
Kenneth Farney, Adm.

Earl Park Nursing Home
400 Chestnut, Earl Park 47942
Evelyn Taylor, Adm.

Mary's Nursing Home
Maple & Elm, Earl Park 47942
Mary Burtron, Adm.

BLACKFORD COUNTY

Blackford County County Home
R. R. 1, Hartford City 47348
Loren Conner, Adm.

Willow Hall
715 N. Mill St.,
Hartford City 47348
Ralph and Martha Waldo, Adms.

BOONE COUNTY

English Nursing Home
1015 N. Lebanon, Lebanon 46052
Bessie May English, Adm.

Indiana Baptist Home, Inc.
R. R. 1, Zionsville 46077
William Keith, Adm.

National Nursing Home of Lebanon
301 W. Essex, Lebanon 46052
Jean Harmon, R.N., Adm.

Oak Park Manor
R. R. #2, Lebanon 46052
Robert E. and Margaret E. Hine, Adms.

CARROLL COUNTY

The Brethren Home, Inc.
R. F. D. 2, Box 97, Flora 46929
William L. Livingston, Adm.

Fix Community Home, Inc.
404 S. Center St., Flora 46929
Charles E. Fix, Adm.

Fix Community Home, Inc., of Delphi
321 E. Monroe, Delphi 46923
Charles E. Fix, Adm.

CASS COUNTY

Cass County Home
Perrysburg Rd., Logansport 46947
Oliver and Louise Mikesell, Adms.

****Chase Manor Nursing and Convalescent Center**
1 Chase Park, Logansport 46947
Charles J. Harmon, Adm.

The Neal Home
2518 George St., Logansport 46947
Mrs. Donald Lutes, Adm.

CLARK COUNTY

****Hillcrest Nursing Home, Inc.**
203 Sparks Ave., Jeffersonville 47130
Byron W. Branam, Adm.

Kentuckiana Christian Home, Inc.
Route 2, Box 39, Charlestown 47111
Rev. Julian O. Hunt, Adm.

The Ladies Home, Inc.
330 W. Market St., Jeffersonville 47130
Anna Schimpff, Adm.

National Nursing Home of Jeffersonville
735 N. Brim Dr., Jeffersonville 47130
Elsie W. Schrader, R.N., Adm.

O'Brien Rest Home
318 W. Market St., Jeffersonville 47130
Mary A. O'Brien, Adm.

Twilight Nursing Home
418 Riverside Dr., Jeffersonville 47130
Delilah Jean Goodwin, Adm.

Continued

NURSING HOMES
Continued

CLAY COUNTY

MaCanell Nursing Home
R. R. 2, Box 139, Center Point 47840
Hugh W. McCann, Adm.

The Stinson Home
601 S. Leavitt St., Brazil 47834
Helen Stinson, Adm.

Wilson Nursing Home
R. R. 5, Brazil 47834
Jack Wilson and Juanita Mayle, L.P.N., Adms.

CLINTON COUNTY

Assembly Nursing Home
551 E. Walnut St., Frankfort 46041
Rev. George A. Snavely, Adm.

Brock Nursing Home
R. R. 4, Frankfort 46041
Charles White, Adm.

Clinton County Home
R. R. 2, Frankfort 46041
Everett Brock, Adm.

Mulberry Lutheran Home, Inc.
State Route 38, W. Jackson St., Mulberry 46058
Kincaid Smith, Adm.

Newton Convalescent Home
1201 E. Washington St., Frankfort 46041
Westine Newton, R.N., Adm.

Shoemaker Memorial Home
951 E. Clinton St., Frankfort 46041
Rev. T. Wayne Preusz, Adm.

Wesley Manor, Northwest Indiana Methodist Home, Inc.
1555 N. Main St., Frankfort 46041
Carlyle L. Mason, Adm.

DAVIESS COUNTY

Colvin Nursing Home
1109 National Highway, Washington 47501
Laura Colvin, Adm.

Meyers Nursing Home
215 W. Oak St., Washington 47501
Rosetta Meyers, Adm.

Prairie Village, Inc.
1401 Highway 57, South Washington 47501
Georgia Atwood, Adm.

Washington Nursing Center, Inc.
603 E. National Highway, Washington 47501
Charles R. Gabhart, Adm.

DEARBORN COUNTY

Dillsboro Manor
Box 66, Dillsboro 47018
Mr. and Mrs. Dellas M. Ross, Adms.

Shady Nook Convalescent Home
607 Wilson Creek Rd., Lawrenceburg 47025
Wilbur and Alta McMullen, Adms.

****Terrace View ECF**
403 Bielby Rd., Lawrenceburg 47025
Elsie Dreyer, Adm.

DECATUR COUNTY

Laverne Nursing Home
Westport 47283
Peggy L. V. Waltermire, Adm.

Michigan Hill Nursing Home
320 S. Michigan Ave., Greensburg 46135
Barbara J. Mouser, Adm.

Odd Fellows Home
R. R. 8, Greensburg 47240
Harold Williams, Adm.

Paul-Ann Nursing Home
R. R. 4, Greensburg 47240
Paul E. and Ann Johnson, L.P.N., Adms.

Pearl Black Nursing Home
202 W. Third St., Greensburg 47240
Pearl Black, Adm.

DEKALB COUNTY

Betz Nursing Home
R. R. 3, Auburn 46706
Everett and Doris Betz, Adms.

Butler Hotel Rest Home, Inc.
117 S. Broadway St., Butler 46721
Dorothy Dickerhoof, Adm.

Sheehy Nursing Homes, Inc.
402 N. Broadway St., Butler 46721
Flo Sheehy, Adm.

Sheehy's Retirement Home
406 N. Broadway, Butler 46721
Flo Sheehy, Adm.

Southview Nursing Home
131 W. Depot St., Butler 46721
Marjorie Harrold, Adm.

DELAWARE COUNTY

Bethel Nursing Home
R. R. 9, Muncie 47302
Emogene E. Turner, Adm.

Chrystal's Country Home
R. R. 1, Selma 47383
Chrystal V. Steele, L.P.N., Adm.

Delaware County Home
R. R. 5, Muncie 47302
Leonard J. Graham, Adm.

Dunkirk Nursing and Convalescent Home
R. R. 2, St. Rd. 67, So., Dunkirk 47336
Raymond E. and M. June LaFevre, Adms.

Eads Nursing Home
R. R. 7, Muncie 47305
Epsy W. Eads, Adm.

Faulkner Rest Home
905 S. Grant St., Muncie 47305
Edgar Faulkner, Adm.

Golden Rule Nursing Home
502 N. Madison St., Gaston 47342
Eunice A. Messersmith, L.P.N., Adm.

Maple Grove Convalescent Home
1347 East Jackson St., Muncie 47305
Pearl B. Harty, Adm.

Morgan-Nickols Convalescent Home
727 Wheeling Ave., Muncie 47303
Margaret L. Nickols, Adm.

Morgan-Nickols Residential Club
175 Kilgore, Muncie 47305
Margaret L. Nickols, Adm.

****Parkview Nursing Home**
2200 White River Blvd., Muncie 47303
Margaret L. Nickols, Adm.

****Riverview Convalescent Home**
R. R. 2, Burlington Dr., Muncie 47302
Nila M. Harty, Adm.

Shady Haven Rest Home
R. R. 6, Bethel Pike, Muncie 47302
Leila C. Wilcox, Adm.

Sylvester Home for the Aged
R. R. 5, Burlington Dr., Muncie 47302
Mantha J. Sylvester, Adm.

Woodland Home #1
917 E. Main St., Muncie 47305
Hazel Wilson, R.N., Adm.

Woodland Home #2
1612 W. Jackson, Muncie 47303
Hazel Wilson, R.N., Adm.

DUBOIS COUNTY

Hubster's Boarding Home
1008 Van Buren, Huntingburg 47542
Lillian Hubster, Adm.

Jasper Nursing Center, Inc.
R.R. 2, Jasper 47546
John L. and Lola M. Wehrle, Adms.

Jasper Nursing Home
102 W. Seventh St., Jasper 47546
Lola M. Wehrle, Adm.

Providence Home
W. Ninth Street, Jasper 47546
Rev. Philip Ottavi, Adm.

****St. Ann Nursing Home**
511 Fourth St., Huntingburg 47542
Sister M. Johnita, Adm.

ELKHART COUNTY

Fair-Moor Nursing and Convalescent Home, Inc.
2600 Moorehouse, Elkhart 46517
Lucille Schmucker, Adm.

Hutchinson Nursing Home
302 S. Sixth St., Goshen 46526
Emil and Louise Weisjahn, Adms.

Lu-Ann Nursing Home
952 W. Walnut St., Nappanee 46550
John L. Mellinger and Wayne R. Dunham, Adms.

Milleman Convalescent Home, Inc.
430 W. Marion St., Elkhart 46514
Herold A. and Hazel Milleman, L.P.N., Adms.

Nicholson Convalescent Home
2400 Elkhart Rd., Goshen 46526
George and Gracia Nicholson, R.N., Adms.

Rest Haven Nursing Home
803 Wolf Ave., Elkhart 46514
Peter A. Calabrese, Adm.

Rest Home
525 W. Lexington Ave., Elkhart 46514
Pearl Carr, Adm.

Riley Convalescent Home
527 S. Main St., Goshen 46526
Albert and Eunice Riley, L.P.N., Adms.

Simpson Nursing Home
114 S. 6th St., Goshen 46526
Richard A. Simpson, Adm.

Treva's Nursing Home
1005 S. Third St., Elkhart 46514
Treva M. Criss, Adm.

FAYETTE COUNTY

Paula-Mar Nursing Home
319-21 Western Ave., Connersville 47331
Paul E. and Mary M. Harvey, Adms.

FLOYD COUNTY

Green Valley Convalescent Center
3018 Green Valley Rd., New Albany 47150
C. Bayless Conley, Adm.

Providence Retirement Home
703 E. Spring St., New Albany 47150
Sister Catherine Loretta, Adm.

FOUNTAIN COUNTY

Alward Nursing Home
605 Summit St., Attica 47918
Leston and Imogene B. Alward, R.N., Adms.

FRANKLIN COUNTY

Echo Hill Nursing Home
R. R. 2, Laurel 47024
Myrtle Jackson, Adm.

Elsie Dreyer Nursing Home
273 Main St., Brookville 47012
Elsie Dreyer, Adm.

FULTON COUNTY

Miller Nursing Home
719 Madison St., Rochester 46975
Carl Miller, Adm.

Rochester Nursing Home
1118 Main St., Rochester 46975
Gerald L. Eastburg, Adm.

GIBSON COUNTY

Duncan Wee Bonnie Rest Home
R. R. 1, Princeton 47570
Semira D. Fishman, Adm.

Forest Del Convalescent Home
1020 W. Vine St., Princeton 47570
Kenneth Maikranz, Adm.

Gibson County Home
R. R. 1, Princeton 47570
William Morgan, Adm.

Good Samaritan Home Inc.
210 N. Gibson St., Oakland City 47560
Hovey Hedges, Adm.

Holiday Homes, Inc.
Tower Heights, Princeton 47570
Lowell A. Dunigan, Adm.

Oakland City Rest Home
114 Grove St., Oakland City 47560
Lloyd Higgins, Adm.

GRANT COUNTY

Calbert's Rest Home
204 N. Washington St., Marion 46952
Wanda Whitaker, Adm.

Ellen Hill Home, Inc.
710 W. Third St., Marion 46952
Opal E. Calbert, Adm.

Emily E. Flinn Home, Inc.
615 W. 12th St., Marion 46952
Rev. James M. Hull, Adm.

Friendship Heights Rest Home
704 S. Main St., Fairmount 46928
Addie M. Bryant, L.P.N., Adm.

Golden Age Nursing Home
1800 Kem Rd., Marion 46952
Bernie Winkle, Adm.

****Wesleyan Nursing Home**
518 W. 36th St., Marion 46952
Carroll M. Jones, Adm.

River-View Nursing Home, Inc.
221 N. Washington, Marion 46952
Ronald Brown, Adm.

GREENE COUNTY

Glenburn Rest Haven
Glenburn Rd., R. R. 2, Linton 47441
Nola D. Yoder, L.P.N., Adm.

HAMILTON COUNTY

Arcadia Rest Home
405 S. East St., Arcadia 46030
Florence Sigler, Adm.

Lakeview Guest Home
R. R. 1, Box 15, Carmel 46032
Seth and Sara Wells, Adms.

Maple Park Health Manor
Box 156-C, R. R. 1, Westfield 46074
Carl Tracy, Adm.

National Nursing Home of Noblesville
1791 Greenfield Pike, Noblesville 46060
Barbara Poore, R.N., Adm.

Possman Boarding Home (for children)
303 E. South St., Arcadia 46030
Floyd and Betty Possman, Adms.

Rollins Home for Retarded Children
69 N. Harrison St., Cicero 46034
Mabel A. Rollins, R.N., Adm.

Sheridan Rest Home, Inc.
903 Sheridan Ave., Sheridan 46069
Dorothy Rood, Adm.

Walston Home for Retarded Children
N. Peru St., Cicero 46034
Mrs. Everett Walston, Adm.

HANCOCK COUNTY

Golden Rule Rest Home
R. R. 12, Box 403, Indianapolis 46236
Emily P. Beck, L.P.N., Adm.

Continued

NURSING HOMES

Continued

Model A Nursing Home
R. R. 5, Greenfield 46140
Jesse and Lavon Beeson, Adms.

Park Riley Nursing Home
1310 E. Main St., Greenfield 46140
Gwendolyn W. Suttle, R.N., Adm.

****Twinbrook, Inc.**
R. R. 4, Box 66, Greenfield 46140
Marie C. Kavalaris, Adm.

Wood Nursing Home
14 N. Wood St., Greenfield 46140
Hazel E. Wood, L.P.N., Adm.

HENDRICKS COUNTY

Hendricks County Home
865 E. Main, Danville 46122
Edna O. Anderson, Adm.

National Nursing Home of Danville
337 W. Lincoln St., Danville 46122
Sondra Rexing, R.N., Adm.

Vinewood Nursing Home
404 North Vine St., Plainfield 46168
Stephen Snyder, Adm.

HENRY COUNTY

"The Boxwoods" Nursing Home
115 N. 10th St., New Castle 47362
Carlisle Butcher, Adm.

Hammond Nursing Home
806 W. Broad St., New Castle 47362
Florence Molchin, Adm.

Henry County Home
N. Memorial Dr., New Castle 47362
Fred Glad, Adm.

Lewisville Hotel for Senior Citizens
U. S. 40, Lewisville 47352
Sarah Jones, Adm.

Middletown Nursing Home
130 S. 10th St., Middletown 47356
Robert I. Clevenger, Adm.

National Nursing Home of New Castle
901 N. 16th St., New Castle 47362
Margaret Joyce Kidd, R.N., Adm.

New Hope Nursing Home
Lewisville 47352
Charlotte Baird, Adm.

Resthaven
420 S. Main St., New Castle 47362
Dorothy Shipp, R.N., Adm.

Ryse Boarding Home
R. R. 5, New Castle 47362
John T. and Arizonia Ryse, Adms.

HOWARD COUNTY

****Americana Nursing Center of Kokomo**
3524 S. Lafountain St., Kokomo 46901
John Huber, Adm.

Harrell's Boarding House
708 N. Main St., Kokomo 46901
June Harrell, Adm.

Lucy Cole Nursing Home
332 W. Markland, Kokomo 46901
Lucy Cole, L.P.N., Adm.

Pleasant Rest
508 W. Taylor St., Kokomo 46901
Homer E. and Frances T. Johnson, Adms.

Samaritan Home of Kokomo, Inc.
513 East Vaile Ave., Kokomo 46901
Sister Raphael, Adm.

****Windsor Estates of Kokomo**
429 Lincoln Rd. W., Kokomo 46901
Alice Fox, R.N., Adm.

HUNTINGTON COUNTY

****Friendly Nursing Home, Inc.**
1500 Grant St., Huntington 46750
Richard G. Shedd, Adm.

Huntington County Home
R. R. 5, Huntington 46750
Ben Thompson, Adm.

****Methodist Memorial Home for the Aged, Inc.**
Warren 46792
Philip Souder, Adm.

Roanoke Nursing Home, Inc.
743 N. Main Street, Roanoke 46783
Robert Barna, Adm.

Town & County Nursing Home
R. R. 8, Huntington 46750
Donald E. and Marlene Barna, R.N., Adms.

JACKSON COUNTY

****Jackson Park Convalescent Center, Inc.**
707 Jackson Park Dr., Seymour 47274
Harold Chandler, Adm.

Kaley's Nursing Home
202 W. Sixth St., Seymour 47274
Marcia Kaley, Adm.

Westside Nursing Home
108 S. Pine St., Seymour 47274
Norma Suggs, Adm.

JASPER COUNTY

Jasper County Home
R. R. 3, Rensselaer 47978
Fred Hall, Adm.

Remington Rest Home
Illinois and Minnesota Sts., Remington 47977
Birdella N. Sullivan, Adm.

JAY COUNTY

Parkwood Convalescent Home
High and Park Sts., Portland 47371
Pearl B. Harty, Adm.

Portland Nursing Home
406 W. Arch St., Portland 47371
Mary Ellen Hearn, Adm.

JEFFERSON COUNTY

****Hanover Nursing Home**
S. R. 56 W., Hanover 47243
Ella L. Shuell, R.N., Adm.

Mayfield Nursing Home
402-410 Elm St., Madison 47250
George and Charlotte Mayfield, Adms.

JENNINGS COUNTY

Johnson's Convalescent Home
113 E. Jackson, North Vernon 47265
Gladys Johnson, Adm.

JOHNSON COUNTY

Faith Home
P. O. Box 218, Edinburg 46124
Raymond C. Brown, Adm.

Greenwood Hilltop Nursing Home
R. R. 2, Fry Rd., Greenwood 46142
Violet VanSickle, Adm.

Indiana Masonic Home
Franklin 46131
Roy O. Turner, Adm.

****Indiana Retired Teacher's Community**
Greenwood Village, Greenwood 46142
Mary Jane Beaman, Adm.

Janie's Nursing Home
651 S. State St., Franklin 46131
Janie Johnson, L.P.N., Adm.

Johnson County Home
R. R. 1-B, Franklin 46131
Albert Bundy, Adm.

Methodist Home
Franklin 46131
Rev. W. D. Koehnlein, Adm.

The Welcome Nursing Home
1109 N. Main St., Franklin 46131
Stephen J. Snyder, Adm.

KNOX COUNTY

****Crestview Home**
Box 237, Old Bruceville Rd., Vincennes 47591
Cora T. Joyce, Adm.

Freelandville Community Home, Inc.
Freelandville 47535
Lorena Walters, R.N., Adm.

Moore's Nursing Home, Inc.
204 W. Third St., Bicknell 47512
Ernest P. and Barbara J. Moore, Adms.

****Restwell Home, Inc.**
1321 Willow St., Vincennes 47591
Warren J. Mauck, Adm.

****Vincennes Nursing Home**
1202 S. 16th St., Vincennes 47591
Fern Junod, Adm.

KOSCIUSKO COUNTY

****Alfran Nursing Home**
2501 E. Center St., Warsaw 46580
Frank N. Wilson, Adm.

****Miller's Merry Manor**
R. R. 2, County Farm Rd., Warsaw 46580
Wallace T. and Enid L. Miller, R.N., Adms.

Orn Nursing Home
North Main St., Milford 46542
Mrs. Amos Orn, Adm.

Pierceton Nursing Home
Indiana and Main Sts., Pierceton 46562
Elson Wilson, Adm.

****Prairie View Rest Home, Inc.**
300 Prairie St., Warsaw 46580
Nancy Bradbury, L.P.N., Adm.

LAGRANGE COUNTY

Marks' Nursing Home
R. R. 1, LaGrange 46761
Marie B. Marks, Adm.

LAKE COUNTY

Colonial House, Inc.
119 N. Indiana Ave., Crown Point 46307
Edythe Frantz, L.P.N., Adm.

Gary Convalescent Home, Inc.
386 Mount St., Gary 46406
Joseph Shapiro, M.D., Adm.

Great Oaks Nursing and Convalescent Home
R. R. 1, Box 30, Cedar Lake 46303
Daniel R. T. Davis, Adm.

Green's Geriatric Health Center
2052 Delaware St., Gary 46407
Benjamin J. Green, Adm.

Green's Home
3960 Massachusetts St., Gary 46409
Leonard D. and Lena J. Odum, Adms.

Jayne Bryant Nursing Home
P. O. Box 166, Crown Point 46307
Ellen Jayne Bryant, Adm.

****Lake County Convalescent Home**
114 County Road O, Crown Point 46307
Joseph J. Kish, Adm.

Medicenter/Gary
601 W. 61st Ave., Gary 46408
Duane A. Ericks, Adm.

Miller Nursing Home
2301 Adams St., Gary 46407
Ida Miller, Adm.

****Mills Rest Home**
5011 Maryland St., Gary 46409
Audrey Mills, Adm.

St. Anthony's Rest Home
201 Franciscan Rd., Crown Point 46307
Sister Mary Cherubim, Adm.

Shady Heights Nursing Home
R. R. 1, Box 46, Dyer 46311
Faye McGuire, L.P.N., Adm.

Simmons Loving Care Health Facility
1944 Maryland St., Gary 46407
Anna L. Simmons, Adm.

West Side Nursing Home
829 W. Third Ave., Gary 46402
Stuart Primack, Adm.

****Wildwood Manor, Inc.**
1964 Clark Rd., Gary 46404
George Walker, Adm.

Willowdale Convalescent Home
10406 Jennings Pl., Crown Point 46307
Donald D. DuSold, M.D., Adm.

LAPORTE COUNTY

****Anderson Sanitarium, Inc.**
1702 I St., LaPorte 46350
S. H. Perkins, Adm.

Beach Cliff Lodge Nursing Home
1001 Lake Shore Dr., Michigan City 46361
Theodore Moss, Adm.

****Lakeside Convalescent-Nursing Home, Inc.**
One mile east of U.S. 421 on U.S. 20, Michigan City 46361
Norman Rust, Adm.

Private Care Home
602 Spring St., Michigan City 46360
Roger J. Schofield, Adm.

****Red Oaks Home**
910 S. Carroll Ave., Michigan City 46361
Betty Anderson, R.N., Adm.

Stites Home, Inc.
R.R. 6, Box 142, LaPorte 46350
J. McClellan Hertle, Adm.

Tubbs Nursing Home
Michigan Blvd. and Wolfe Ave., Michigan City 46361
Helen C. Tubbs, L.P.N., Adm.

LAWRENCE COUNTY

Blackburn Rest Home
519 H St., Bedford 47421
Stella J. Blackburn, Adm.

Vice Room and Board Home
304 W. Main St., Mitchell 47446
Odie and Zora Vice Cooper, Adms.

MADISON COUNTY

****Americana Nursing Center of Anderson**
1345 N. Madison Ave., Anderson 46011
Mrs. Lee Moore, R.N., Adm.

Bradford Nursing Home
625 W. Adams St., Alexandria 46001
Alma Bradford, Adm.

Cook Rest Home
424 Ruddle Ave., Anderson 46012
Ella Cook, Adm.

****Dickey Nursing Home**
220 N. Ninth Street, Elwood 46036
Louise Dickey, L.P.N., Adm.

Dickey Nursing Home, Inc.
1007 N. 9th, Elwood 46036
James G. Dickey, Adm.

Goble Home
332 W. 11th St., Anderson 46016
Oran and Olive Goble, Adms.

Golden Age Manor
1901 N. "A" St., Elwood 46036
Rev. Max Bingham, Adm.

Continued

NURSING HOMES
Continued

Rahbek Nursing Home
711 W. Fifth St., Anderson 46016
Mary Ellen Bell, Adm.

Rolling Hills Skilled Nursing Center, Inc.
1821 Lindburg Rd., Anderson 46012
Casto Ball, Adm.

****Turtle Creek Medi-Centre of Anderson**
1809 N. Madison Ave., Anderson 46012
Donald A. Frink, Adm.

MARION COUNTY

Ada's Golden Age
2115 Central Ave., Indianapolis 46202
Ada Stockdale, Adm.

Alpha Home for Aged
1840 Senate Ave., Indianapolis 46202
Mrs. W. Lincoln Murphy, Adm.

Altenheim of Indianapolis
2007 N. Capitol Ave., Indianapolis 46202
Elizabeth L. Myers, Adm.

****Americana Nursing Center Of Indianapolis**
5600 E. 16th St., Indianapolis 46218
Paul Neely, Adm.

Anthony Hall Nursing Home
2135 N. Alabama St., Indianapolis 46204
Stephen J. Snyder, Adm.

The Barton House
505 N. Delaware, Indianapolis 46204
Stephen J. Snyder, Adm.

Bel-Terrace Nursing Home
1629-33 N. College Ave., Indianapolis 46202
Stephen J. Snyder, Adm.

Booker-Watts Annex Nursing Home
1445 Broadway, Indianapolis 46202
Geneva Watts, Adm.

Booker-Watts Nursing Home
2523 Central, Indianapolis 46205
Geneva Watts, Adm.

****Borinstein Home for Jewish Aged, Inc.**
3516 Central Ave., Indianapolis 46205
Bill Newman, Adm.

Chateau de Repos, Inc.
5025 W. 52nd St., Indianapolis 46254
Doris E. Stuart, L.P.N., Adm.

****Colonial Crest Nursing Home**
7149 E. 21st St., Indianapolis 46219
Hart N. Hasten, Adm.

Community "Emerson" Nursing Home, Inc.
3420 N. Emerson Ave., Indianapolis 46218
John G. Harris, Adm.

Community Nursing Home
4743 Southeastern, Indianapolis 46203
John G. Harris, Adm.

Community South Meridian Nursing Home
2102 S. Meridian St., Indianapolis 46225
John G. Harris, Adm.

Community West 38th St. Nursing Home
5435 W. 38th St., Indianapolis 46224
John Harris, Adm.

Conner Nursing Home
1408 N. Pennsylvania St., Indianapolis 46202
Lucy V. Conner, Adm.

****Continental Nursing Home**
344 S. Ritter, Indianapolis 46219
William Wells, Adm.

Crestview Manor Nursing Home
1118 East 46th St., Indianapolis 46205
John G. Harris, Adm.

Del Mar Nursing Home, Inc.
709 Lynhurst Dr., Indianapolis 46224
Helen J. Harbison and Alice K. Jackson, Adms.

Evangelistic Center, Inc.
3518 Shelby, Indianapolis 46227
Rev. E. P. Qualls, Adm.

Frame Nursing Home
373 N. Holmes Ave., Indianapolis 46222
Marybell Frame, Adm.

Fredrick Home for Aged
3679 Washington Blvd., Indianapolis 46205
Price and Donna Fredrick, Adms.

Garfield Park Nursing Home
2605 Shelby Street, Indianapolis 46203
Thelma Vandervort, L.P.N., Adm.

Garfield Park Nursing Home #2
2620 N. Keystone Ave., Indianapolis 46203
Thelma B. Vandervort, L.P.N. Adm.

Garner's Nursing Home
1429 Carrollton Ave., Indianapolis 46202
Elizabeth Garner, Adm.

****Greenview Manor Nursing Home**
1700 N. Illinois St., Indianapolis 46202
Keith Phillipps, Adm.

Heritage Nursing Home
8935 E. 46th St., Indianapolis 46226
Mary Jane Nicewander, R.N., Adm.

Hillside Nursing Home
3405 N. Ralston, Indianapolis 46218
Bennie Mason, Adm.

Independent Living Boarding Home
6038 W. 25th St., Indianapolis 46224
Robert Roland, Adm.

Indianapolis Home for the Aged, Inc.
1731 N. Capitol Ave., Indianapolis 46202
Orena Royce, Adm.

Lynhurst Nursing Home, Inc.
5225 W. Morris St., Indianapolis 46241
James E. Hill, Sr., and Ethel L. M. Eldridge, Adms.

McKenzie Convalescent Home
2926 N. Capitol Ave., Indianapolis 46208
James McKenzie, Adm.

Mabel S. Waddle Private Nursing Home
2112 N. Delaware, Indianapolis 46202
Stephen J. Snyder, Adm.

****Marion County Home**
11850 Brookville Rd., Indianapolis 46239
Robert F. Oldham, Adm.

Mayfair Home
3240-42 Washington Blvd., Indianapolis 46205
Mr. and Mrs. John Leech, Adms.

Memorial Nursing Home, Inc.
41 W. 32nd St., Indianapolis 46208
John D. Werley, Jr., Adm.

Midland House, Inc.
3302 Washington Blvd., Indianapolis 46205
M. P. Speakman, Adm.

Northside Nursing Home
2037 N. Illinois St., Indianapolis 46202
Susie M. Goff, Adm.

****Northwest Manor Nursing Home**
6440 West 34th St., Indianapolis 46224
Joseph Henderson, Adm.

Parkview Manor Nursing Home
2424 E. 46th St., Indianapolis 46205
Mrs. John Harris, Adm.

Pleasant View Rest Home
5000 Southeastern Ave., Indianapolis 46203
C. O. Rader, Adm.

St. Augustine Home for the Aged
2345 W. 86th St., Indianapolis 46260
Sister Angele, Mother Superior Adm.

St. Paul Baptist Church Home for the Aged
1141-45 N. Sheffield Ave., Indianapolis 46222
Rev. C. J. Dailey, Adm.

St. Paul Hermitage
501 N. 17th St., Beech Grove 46107
Sister Rosemary Braun, O.S.B., Adm.

Sarah's Nursing Home
2716 Sutherland Ave., Indianapolis 46205
Sarah Hill, Adm.

Springer Health Facility
6566 W. Washington St., Indianapolis 46241
Robert and Leona Kenworthy, Adms.

T. Wray Nursing Home
1812 Central, Indianapolis 46202
Thelma F. Wray, L.P.N., Adm.

Three Sisters Nursing Home
6130 Michigan Rd., Indianapolis 46208
Mamie Beamon, Adm.

****Turtle Creek Convalescent Center South**
525 E. Thompson Rd., Indianapolis 46227
Milton E. Collins, Ph.D., Adm.

Turtle Creek Convalescent Centre Southeast, Inc.
2002 Albany Ave., Beech Grove 46107
Samuel Gunnerson, Adm.

Weber Convalescent Home
43 S. Ritter Ave., Indianapolis 46219
C. O. Rader, Adm.

Welch Boarding Home
2901 N. Pennsylvania St., Indianapolis 46205
Catherine Welch, Adm.

MARSHALL COUNTY

Fairview Nursing Home
Route 4, Plymouth 46563
Mabel Beam, Adm.

I.B.M. Nursing Home
1029 W. Jefferson St., Plymouth 46563
Iva B. Miller, Adm.

Klapp Nursing Home
145 S. Michigan, Argos 46501
Doris I. Klapp, Adm.

Marshall County Home
R. R. 5, Plymouth 46563
Loren D. Decker, Adm.

Myers Nursing Home
R. R. 3, Box 159, Bremen 46506
Pearl Myers, L.P.N., Adm.

R.N. Nursing Home
Teegarden 46569
Laura M. Hathaway, R.N., Adm.

MIAMI COUNTY

****Friendly Nursing Home, Inc.**
317 Blair Pike, Peru 46970
Richard Shedd, Adm.

Miami County Home
R. R. 5, Peru 46970
Rev. Arthur J. Tinkel, Adm.

The Miami Home
77 E. Third St., Peru 46970
H. Lucille McDaniel, Adm.

Peru Nursing Home
906 W. Main St., Peru 46970
Leona M. Maggard, Adm.

MONROE COUNTY

Arbutus Rest Home
R. R. 2, Box 46, Bloomington 47403
Hazel Hall, Adm.

****Hospitality House, Inc.**
1100 S. Curry Pike, Bloomington 47401
C. Darrell Phillips, Adm.

MONTGOMERY COUNTY

Ben Hur Home
1375 S. Grant, Crawfordsville 47933
Martha E. Williams and G. Fred Cowan, L.P.N., Adms.

Carmen Nursing Home
817 N. Whitlock Ave., Crawfordsville 47933
Cline Harbison, Adm.

Hazel Small Rest Home
N. Vine St., Waynetown 47990
Sarah Small, Adm.

Laura M. Bowles Convalescent Home, Inc.
1304 S. Grant Ave., Crawfordsville 47933
Richard Bowles, L.P.N., Adm.

MORGAN COUNTY

Cherry Nursing Home
60 E. Harrison St., Martinsville 46151
Zepha Cherry, Adm.

Henderson Nursing Home
214 Washington St., Morgantown 46160
Joe and Marguerite Henderson, Adms.

Kennedy Memorial Christian Home
210 W. Pike St., Martinsville 46151
W. Dean Mason, Adm.

Morgan County Home
190 S. Main St., Martinsville 46151
Earl B. Fletcher, Adm.

NEWTON COUNTY

Kentland Kare Home
102 E. Carroll St., Kentland 47951
Helen M. Borman, R.N., Adm.

NOBLE COUNTY

Kish's Twin Pines Nursing Home
Rt. 1, Albion 46701
Fred and Betty Kish, Adms.

Kneipp Springs
Rome City 46784
Sister Mary Marcella, Adm.

Linville Boarding Home
518 E. Diamond, Kendallville 46755
Harold R. and Weltha Linville, Adms.

Luckey Memorial Nursing Home
Highways #33 & #109, Wolflake 46796
Bessie K. Luckey, Adm.

Lutheran Homes, Inc.
612 E. Mitchell, Kendallville 46755
Fred L. Nieno, Adm.

Sacred Heart Home
R. R. 2, Avilla 46710
Sister M. Dolorita, R.N., Adm.

OHIO COUNTY

Rising Sun Nursing Home
Rio Vista Ave., Rising Sun 47040
Margaret Granatir, R.N., Adm.

ORANGE COUNTY

Gorge Nursing Home, Inc.
R. R. 2, French Lick 47432
Gertrude Haynes, R.N., Adm.

OWEN COUNTY

Donna Nursing Home #2
R. R. 2, Spencer 47460
Norman S. Tirsway, Adm.

Continued

Owen County Home
R. R. 3, Spencer 47460
Ruthie Gray, Adm.

PARKE COUNTY

Friendship House Nursing Home
South Main St., Box 58
Bloomingdale 47832
Darrell H. Bishop, Adm.

Howard Avenue Nursing Home
303 Howard Ave., Rockville 47872
Helen L. Wittenmyer, Adm.

Parke County Nursing Home
R. R. #2, Rockville 47872
Margaret Ball, Adm.

PERRY COUNTY

Lincoln Hills Nursing Home, Inc.
19th and Pestalozzi, Tell City 47586
G. L. Crutchfield, Adm.

PORTER COUNTY

Beverly Shores Nursing Home, Inc.
Beverly Shores 46301
John W. Bragg, Adm.

****Evergreen Park Nursing and Convalescent Home**
State Rd. 49 and LaPorte, Valparaiso 46383
John Blenke, Adm.

Whispering Pines Home for Senior Citizens
N. Calumet Rd., Valparaiso 46383
Mary E. Bartz, Adm.

POSEY COUNTY

Allison Nursing Home
Locust St., Poseyville 47633
Lula Allison, Adm.

The Charles Ford Memorial Home
New Harmony 47631
Harry S. Glump, Adm.

Merimac Nursing Home
1302 North St., Cynthiana 47612
Mary M. McGuire, Adm.

The Valley Rest Home
R. R. 4, Mount Vernon 47620
Raymond E. and Esther M. Faulkner, Adms.

PUTNAM COUNTY

Donna Nursing Home
Main St., Cloverdale 46120
Norman S. Tirsway, Adm.

Eventide Rest Home
R. R. 2, Greencastle 46135
Cletus O. and Daisy L. Sult, R.N., Adms.

Greencastle Christian Home
102 W. Poplar St., Greencastle 46135
Rev. L. C. Ziegler, Adm.

Putnam County Home
R. R. 3, Greencastle 46135
George H. Gentry, Adm.

Ruark Nursing Home
R. R. 1, Fillmore 46128
Elsie C. Ruark, Adm.

Sunset Manor Nursing Home
1109 S. Indiana St., Greencastle 46135
Robert & Bessie Goldsberry, Adms.

RANDOLPH COUNTY

Parrott's Home
304 W. Sherman St., Lynn 47355
Willis R. and Mary Maxine Parrott, Adms.

RIPLEY COUNTY

Davis Nursing Home
S. Main St., Sunman 47041
Edward and Anna Davis, Adms.

Gilland Nursing Home #1
310 Cravens St., Osgood 47037
Mildred Gilland, Adm.

Gilland Nursing Home #2
120 E. Ripley St., Osgood 47037
Mildred Gilland, Adm.

Gilland Nursing Home #3
Glasgow and Willson, Osgood 47037
Mildred Gilland, Adm.

Health and Hospitality Center
Carr St., Milan 47031
Alfred J. Colson, Adm.

Schwing Nursing Home
R. R. 1, Sunman 47041
Donald J. Schwing, Adm.

RUSH COUNTY

Gorman's Rest Home
Railroad St., Milroy 46156
Thomas and Elizabeth Gorman, Adms.

Hillside Haven
424 North Perkins St., Rushville 46173
Mary Todd, R.N., Adm.

Holiday House
114 E. Fifth St., Rushville 46173
Marjorie Pearsey, L.P.N., Adm.

****Jackson Nursing Home**
612 E. 11th St., Rushville 46173
Marjorie Pearsey, L.P.N., Adm.

Rowland's Nursing Home
230 E. Seventh St., Rushville 46173
Willard and Nora Lee Rowland, Adms.

ST. JOSEPH COUNTY

Calvert Convalescent Home
1844 E. Calvert, South Bend 46614
Helen Heppel, R.N., Adm.

****Cardinal Nursing Home, Inc.**
118 S. Williams St., South Bend 46601
Thomas E. Squibb, Adm.

****Carlyle Nursing Home**
5023 N. Western Ave., South Bend 46625
Vincent Ruffolo, R.N., Adm.

Dodge Home for Old People
318 E. Third St., Mishawaka 46544
Florence Moss, Adm.

Dor-A-Lin, Inc.
1024 N. Notre Dame Ave., South Bend 46617
Edward L. Finkenbinder, Adm.

Farris Nursing Home
1021 W. Washington St., South Bend 46601
Helen M. Farris, Adm.

Farris Nursing Home #2
1044 Lincolnway West, South Bend 46616
Helen M. Farris, Adm.

Golden Age Manor Corporation
811 East 12th St., Mishawaka 46544
Gloria McCullough, Adm.

Haven Hubbard Memorial Home
New Carlisle 46552
Mearl L. Dustin, Adm.

Krogh Nursing Home
109 N. Cedar St., Mishawaka 46544
Joyce Wood, L.P.N., Adm.

Melrose Manor
601 S. Russell St., Mishawaka 46544
Eunice Turner, L.P.N., Adm.

Morningside Nursing Home, Inc.
18325 Bailey Ave., South Bend 46637
Pauline Locks, R.N., Adm.

River Park Nursing Home
2706 Wall St., South Bend 46615
William G. Swintz, Adm.

River Park Nursing Home
915 27th St., South Bend 46615
William G. Swintz, Adm.

Robert P. and Clara I. Milton Home, Inc.
206 E. Marion St., South Bend 46601
Mrs. T. E. Mauch, Adm.

St. Joseph County Home
53308 Portage Rd., South Bend 46628
Joseph W. Snyder, Adm.

Walkerton Nursing Home
500 Roosevelt Road, Walkerton 46574
Roy and Ruth DeSimone, Adms.

Wilton Rest Home
25419 St. Rt. 2, South Bend 46619
William Grzywinski, Adm.

SCOTT COUNTY

Roe-Seal Memorial Home
Englishton Park, Lexington 47138
Russell R. Byers, Adm.

Shalom Convalescent and Nursing Home
Highway 31 South, Scottsburg 47170
William and Virginia Lippert, R.N., Adms.

SHELBY COUNTY

Ace Placid Home
R. R. 1, Fairland 46126
Dewey F. Murphy, Adm.

Conover Rest Home
Box 311, Morristown 46161
Charles Conover, Adm.

****The Heritage House Convalescent Center**
2309 S. Miller St., Shelbyville 46176
Robert Norman, Adm.

Waldron Nursing Home
Box 95, Waldron 46182
Kathleen L. Kuhn, Adm.

SPENCER COUNTY

Rockport Nursing Center, Inc.
815 Washington St., Rockport 47635
Donald R. and O. Jane Thomason, Adms.

Spencer County Home
R. R. 1, Rockport 47635
Chester Rininger, Adm.

STARKE COUNTY

Knox Nursing Home
302-306 Culver St., Knox 46534
Kenneth Crowel, Adm.

****Little Company of Mary Health Facility, Inc.**
Route 421, San Pierre 46374
Sister Margaret Mary Doherty, Adm.

STEUBEN COUNTY

Edith Nursing Home
116 Powers St., Angola 46703
Helen Taylor, Adm.

Steuben County Rest Home
R. R. 3, Angola 46703
Marshall Coler, Adm.

SULLIVAN COUNTY

Sullivan County Home
R. R. 5, Sullivan 47882
Mr. and Mrs. Walter Houghton, Adms.

****Sullivan Nursing Home**
W. Wolfe St., Sullivan 47882
O. R. and Mary J. Blubaugh, Adms.

SWITZERLAND COUNTY

Jackson's Boarding Home For The Aged
501 West Pike St., Vevay 47043
Harry B. and Peggy Jackson, Adms.

TIPPECANOE COUNTY

Burnett Convalescent Home
221 S. Ninth St., Lafayette 47901
Maude L. Golden, L.P.N., Adm.

Comfort, Inc.
312 N. Eighth St., Lafayette 47901
Allen C. and Clara E. Campbell, R.N., Adms.

Indiana Knights of Pythias Home
1501 South 18th Street, Lafayette 47905
Ray C. Haley, Adm.

Lafayette Care, Inc.
3400 Soldiers Home Rd., W. Lafayette 47906
J. Wilborn Garrison, Adm.

Laura M. Bowles Convalescent Home
147 Ford St., Clarks Hill 47930
Laura M. Bowles, L.P.N., and Laura L. Peterson, Adms.

Lesley Nursing Home
Buck Creek 47924
Rosina Lesley, Adm.

Tippecanoe County Home
R. R. 1, Lafayette 47901
Charles Haan, Adm.

Tippecanoe County Home-Ross Annex
R. R. 6, Lafayette 47901
Charles Haan, Adm.

TIPTON COUNTY

The Higgins Home
R. R. 1, St. Rd. 19, Tipton 46072
Robert D. and Eileen G. Higgins, L.P.N., Adms.

Holtsclaw Nursing Home
119 W. Washington St., Tipton 46072
Margaret Holtsclaw, Adm.

Tipton County Home
R. R. 1, Tipton 46072
Lester Dodd, Adm.

UNION COUNTY

Park Manor Home, Inc.
409 E. Union St., Liberty 47353
Phyllis J. McMurphy, R.N., Adm.

VANDERBURGH COUNTY

Agnes Hawes Boarding Home for the Aged
408 N. Third Ave., Evansville 47710
Agnes Hawes, Adm.

Bethany Rest Home
316 N. Wabash Ave., Evansville 47712
Mary Ashworth, Adm.

Bethel Sanitarium, Inc.
6015 Kratzville Rd., Evansville 47710
Louise Kuiken, R.N., Adm.

Bethel Sanitarium, Inc., Annex
5825 Kuiken Dr., Evansville 47710
Louise Kuiken, R.N., Adm.

Continued

NURSING HOMES
Continued

Boehne Convalescent Center
Station B
Evansville 47712
Henry Harness, Adm.

Braun's Nursing Home
909 First Ave., Evansville 47710
Roy L. and Ruth H. Braun, L.P.N., Adms.

Dellaren Nursing Home
816 North First Ave., Evansville 47710
Robert E. Arendell, M.D., Adm.

Evansville Protestant Home for the Aged
3701 Washington Ave., Evansville 47715
Helen E. Kinkle, Adm.

Gertha's Nursing Home
605 Oakley St., Evansville 47710
Gertha Hendrickson, Adm.

Good Samaritan Home
601 N. Boeke, Evansville 47711
N. R. Allsmiller, Adm.

M & R Nursing Home
1100 N. Read St., Evansville 47710
Mrs. Muriel Sprinkle, L.P.N., Adm.

Newton Rest Home
921-23 S. Elliott St., Evansville 47710
Mary Alice Trimble, Adm.

Pine Haven
3401 Stocker Dr., Evansville 47712
Anita M. Stocker, R.N., Adm.

Quality Care Home
807 S.E. Third St., Evansville 47713
Glenda Sue Adams, L.P.N., Adm.

Rathbone Memorial Home for Aged and Infirm Persons
1320 S. E. Second St., Evansville 47713
Versa M. Sterchi, R.N., Adm.

****Regina Pacis Home**
3900 Washington Ave., Evansville 47715
Rev. William H. Muller, Adm.

****Robert's Nursing Home**
2819 N. St. Joseph Ave., Evansville 47712
Robert Burton, L.P.N., Adm.

St. John and St. Gertrude Home for the Aged
1236 Lincoln Ave., Evansville 47714
Sister Rose de la Trinite, Adm.

Tri-State Community Rest Home
821 Judson Street, Evansville 47713
Edna H. Robinson, Adm.

Vanderburgh County Home
700 Senate Ave., Evansville 47711
Albert E. Breedlove, Adm.

VERMILLION COUNTY

Dana Convalescent Home
Dana 47847
Louise Barton, Adm.

The Ivy Haven Home
232 Ash St., Clinton 47842
Lena M. Gruelich, Adm.

Layman Nursing Home
432 S. Fifth St., Clinton 47842
Mildred Layman, Adm.

Vermillion County Nursing Home
R. R. 1, Hillsdale 47854
Ralph Brown, Adm.

VIGO COUNTY

Allendale Nursing Home
R. R. 2, Box 12, Terre Haute 47802
Lucille McCoskey, Adm.

Brandon Residence for Elderly People
220 N. Fourth St., Terre Haute 47807
Margaret L. Bartsch, Adm.

Clara Fairbanks Home for Aged Women, Inc.
721 Eighth Ave., Terre Haute 47804
Anna Becherer, R.N., Adm.

Ewing Nursing Home
504 S. 15th St., Terre Haute 47807
Mary C. Ewing, R.N., Adm.

Ledgerwood Home
43 S. 20th St., Terre Haute 47803
Norma Jean Ledgerwood, Adm.

****Meadows Manor**
3300 Poplar St., Terre Haute 47803
Guy Belzile, B.A., R.P.T., Adm.

Sarah Dowling Home
1016 N. Sixth St., Terre Haute 47807
Vaurice Mitchel, Adm.

Vigo County Home
3500 Maple Ave., Terre Haute 47804
Carl Koile, Adm.

Wallace Nursing Center
120 W. Margaret Ave., Terre Haute 47802
Evelyn Wallace, Adm.

Webster's Rest Home
513-15 North 14th St., Terre Haute 47807
Ernest Webster, Adm.

WABASH COUNTY

The Estelle Peabody Memorial Home
Seventh and Buffalo, North Manchester 46962
William Visser, Adm.

Friendly Nursing Home, Inc.
1420 Quaker Ave., Wabash 46992
Richard Shedd, Adm.

Pleasant View Nursing Home
R. R. 2, Wabash 46992
Virgil L. and Lois M. Sweares, Adms.

****The Stratford House**
1035 Manchester Ave., Wabash 46992
Ruth Durham, R.N., Adm.

Timbercrest-Church of the Brethren Home
East St., North Manchester 46962
Orville Sherman, Adm.

Vernon Manor for Children
1955 S. Vernon, Wabash 46992
Stanley M. Zydlo, Jr., M.D., Adm.

WARREN COUNTY

Davis Boarding Home
R. R. #2, Covington 47932
John W. Davis, Adm.

Pleasant Valley Retirement and Convalescent Lodge
Kramer 47953
Walter R. and Dorothy D. Ruark, R.N., Adms.

WARRICK COUNTY

Baker's Rest Haven
305 E. North St., Boonville 47601
Viola N. Phillips, L.P.N., Adm.

****Monticello Manor**
S.E. Second St., Boonville 47601
Melvin H. White, Adm.

**Shady Rest Nursing Home
Outer State Street, Chandler 47610
Pearl Bradfield, Adm.

WASHINGTON COUNTY

Williams Convalescent Center, Inc.
Homer and Anson Sts., Salem 47167
Kathleen Williams, L.P.N., Adm.

WAYNE COUNTY

Friends Fellowship Community, Inc.
2030 Chester Blvd., Richmond 47374
James J. Boomgard, Jr., Adm.

Friendship Home
306 S. 10th St., Richmond 47374
Grace Flatley, Adm.

Glen Aire Nursing Home
2116 E. Main St., Richmond 47374
Eileen Singleton, Adm.

Good Will Rest Home
500 W. Main, Cambridge City 47327
Nell Osborne, Adm.

Hilling's Nursing Home
R. R. 1, Box 237, Centerville 47330
Betty L. Hilling, Adm.

Jenkins Hall
N. 10th St., Richmond 47374
M. Raymond Ferguson, Adm.

Mary E. Hill Nursing Home for Aged Colored Women, Inc.
2308 Zoar Ave., Richmond 47374
Robert Mills, Adm.

Owens Convalescent Home
1811 S. Ninth St., Richmond 47374
Bonnie Owens, Adm.

Pinehurst Nursing Home
R. R. 1, Centerville 47330
Bonnie Esta Cole, Adm.

Twin Pines Nursing Home
Main St., Economy 47339
Elizabeth Johnson, Adm.

WELLS COUNTY

Davis National Nursing Home
1001 S. Clark Ave., Bluffton 46714
I. Helen Jackson, Adm.

Cooper Rest Home
306 W. Wabash Ave., Bluffton 46714
John Cooper, Adm.

Southview Rest Home
R. R. 3, Box 306, Bluffton 46714
Cora N. Anderson, L.P.N., Adm.

WHITE COUNTY

Archibald Memorial Home for Aged Deaf
R. R. 2, Brookston 47923
Carl B. Smith, Adm.

Lake Manor Nursing Home
R. R. 6, Monticello 47960
Robert and Ione Don, Adms.

Lake View Home
R. R. 6, Monticello 47960
Ora Rumple, Adm.

WHITLEY COUNTY

Hillcrest Home
710 W. Ellsworth St., Columbia City 46725
Herman O. and Edith M. Oelschlager, R.N., Adms.

South Whitley Rest Home, Inc.
110 W. Columbia St., South Whitley 46787
Robert Bresnahan, Adm.

Whitley County Home
R. R. 1, Columbia City 46725
Waneta Crace, Adm. ◄

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Outpatient Mental Health Facilities In the State of Indiana: 1968

ALBERT LINCH, ACSW
Indiana Department of Mental Health
Indianapolis

Following is a list of outpatient mental health facilities in the state of Indiana, alphabetized by city of location. The reader who might be interested in additional services (family services, pastoral counseling, psychological testing and a more detailed listing of services, staff and application procedure) should consult the listing of June, 1966+.

Bloomington

Indiana University Psychological Clinic, Psychology Building, 47401. (812) 337-2311.
Delton C. Beier, Ph.D., Director.

Columbus

*Bartholomew County Mental Health and Guidance Center, 1541 Hutchins Ave., 47201. (812) 372-7877.
George C. Weinland, M.D., Medical Director.

Elkhart

*Adult and Child Guidance Clinic of Elkhart County, Inc., 224 West High St., 46514. (219) 522-4522.

*Oaklawn Psychiatric Center, Inc., 2600 Oakland Ave., 46514. (219) 523-3350.
Otto D. Klassen, M.D., Medical Director. Robert W. Hartzler, Administrator.

Evansville

*Southwestern Indiana Adult Mental Health Center, Inc., 200 Cherry St., 47713. (812) 425-4251.
John P. Longstaff, M.D., Medical Director.

The Rehabilitation Center, Inc., 3701 Bellemeade Ave., 47713. (812) 477-5381.
Henry Liebundguth, M.D., Medical Director. Spiro B. Mitsos, Ph.D., Administrator.

*Vanderburgh Child Guidance Center, 1 North Barker Ave., 47712. (812) 424-8227.
Lillian Moulton, M.D., Medical Director.

Fort Wayne

*Mental Health Center at Fort Wayne, 227 East Washington Blvd., 46802. (219) 743-5471 ext. 215.
Joseph P. Fiacable, M.D., Director of Adult Division. Steve P. Nestor, ACSW, Administrator.

Robert L. Greenlee, M.D., Director of Children's Division. Richard Noel, ACSW, Administrator.

Gary

*Lake County Mental Health Clinic, 4801 West 5th Ave., 46406. (219) 949-9031.
Krystyna Sklenarz, M.D., Medical Director.

**Northwest Indiana Alcoholism Clinic, 4938 West 5th Ave., 46406. (219) 949-4275.
Anna S. Brand, M.D., Medical Director. Ross Stanton, Acting Administrator.

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* Partially supported by the Indiana Department of Mental Health.

** Completely supported by the Indiana Department of Mental Health.

+ Lubin, B., Linch, A.: Outpatient Mental Health Facilities in the State of Indiana: 1966, *JISMA* 59:553-561, 1966.

Indianapolis

Adult Psychiatry Clinic, Indiana University Medical Center, 1100 West Michigan St., 46207. (317) 639-7422.
John E. Kooiker, M.D., Medical Director.

**Central Indiana Alcoholism Clinic, Bahr Treatment Building, 3000 West Washington St., 46222. (317) 639-5304.
Jerome V. Pace, M.D., Medical Director. Daniel J. Crowe, ACSW, Administrator.

*Child Guidance Clinic of Marion County, Inc., 1949 East 11th St., 46201. (317) 632-5381.
Edward C. Shipley, M.D., Medical Director.

Epilepsy Clinic of The Indiana University Medical Center, First Floor, Riley Hospital, 46207. (317) 639-8747.
Joseph B. Green, M.D., Medical Director.

Episcopal Community Services, Inc., 1537 Central Ave., 46220. (317) 635-2538.
David Phillips, M.D., Medical Director. The Rev. Canon Frank V. H. Carthy, Executive Director.

**Larue D. Carter Memorial Hospital — Outpatient Clinic, 1315 West 10th St., 46207. (317) 634-8401.
Joseph A. FitzGerald, M.D., Director.

Marion County General Hospital, Outpatient Psychiatry Clinic, 960 Locke St., 46207. (317) 636-6331.
William T. Paynter, M.D., Medical Director.

Pediatric-Neurology Clinic (formerly James Whitcomb Riley Memorial Clinic for Intellectually Handicapped Children), First Floor, Riley Hospital, 46207. (317) 639-8747.
Arthur L. Drew, M.D., Medical Director.

Pediatric Neurology Clinic, Marion County General Hospital, 960 Locke St., 46207.
Paul R. Dyken, M.D., Director.

*Riley Child Guidance Clinic, Indiana University Medical Center, 1100 West Michigan St., 46207. (317) 639-8162.
Nancy Roeske, M.D., Director.

Veteran's Administration Regional Office, Mental Hygiene Clinic, 36 South Pennsylvania St., 46209. (317) 635-7401.
John H. Greist, M.D., Acting Medical Director. E. U. Robinson, M.D., Administrator.

Jeffersonville

*Southern Indiana Mental Health and Guidance Center, Inc., 301 Sparks Ave., 47130. (812) 282-3929.
Joseph B. Brill, M.D., Medical Director. Kenneth Shore, ACSW, Executive Director.

Continued

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*Guidance Center of Howard County, Inc., 308 West Taylor St., 46901. (317) 452-5667.
John M. Hoyt, M.D., Medical Director. David M. Barnett, ACSW, Administrator.

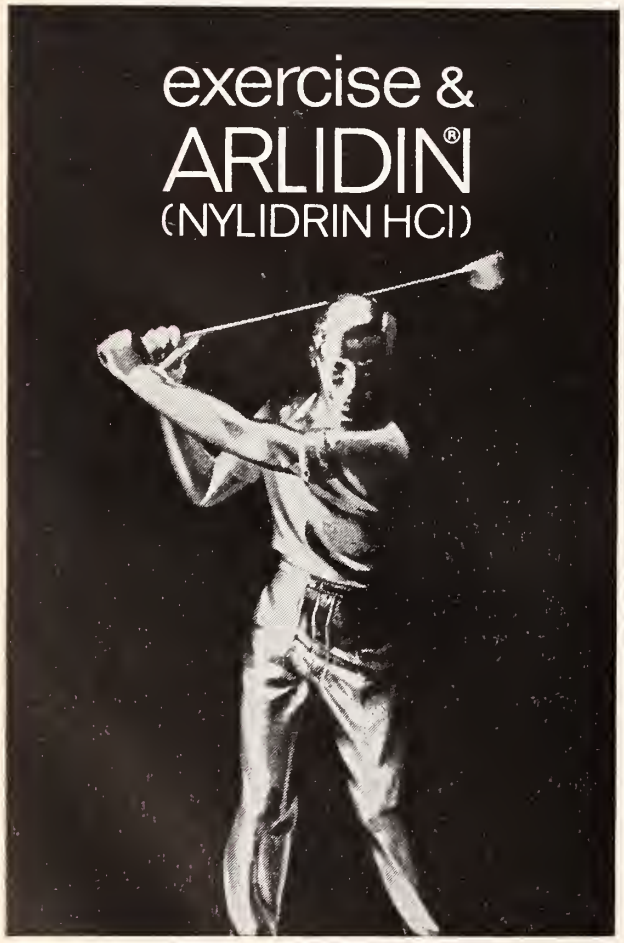
Lafayette

Purdue Psychological Services Center, Education Building, Purdue University, West Lafayette, 47907. 92-2754.
John M. Hadley, Ph.D., Director.

*Tippecanoe County Mental Health Center, Inc., 2900 North River Road, West Lafayette, 47906. 743-9656.
Joe M. Martin, M.D., Medical Director. Clayton Hudson, ACSW, Administrator.

Lawrenceburg

*Community Mental Health Clinic, Inc., 285 Bielby Rd., Lawrenceburg, 47025.
Jane M. Shutt, M.D., Director and Psychiatrist.



Logansport

*Guidance Center, Inc., 200 Eel River Ave., 46947. 753-6441.
Heracleo Matheu, M.D., Medical Director.

Madison

**Madison State Hospital, Madison, 47251. (812) 265-2611.
Ott B. McAtee, M.D., Medical Director.

Marion

*Grant County Mental Health Clinic, 412 South Boots St., 46952. (317) 664-0631.
Larry K. Musselman, M.D., Medical Director. Peter Karras, ACSW, Administrative Director.

Michigan City

*Adult and Child Guidance Clinic for LaPorte County, 701 Washington St., 46360. (219) 872-7279.
Robert Schmitt, M.D., Medical Director. Kathleen Durkott, ACSW, Executive Director.

Muncie

*Delaware County Child Guidance Clinic, 1711 Riverside, 47303. (317) 288-1928.
John L. Yarling, M.D., Medical Director. Robert A. Stump, ACSW, Administrator.

Richmond

*Child Guidance Clinic of Wayne County, Inc., 54 South 15th St., 47374. (317) 962-1523.
Robert W. Schmitt, M.D., Medical Director.

South Bend

*The Mental Health Center of St. Joseph County, Inc., 527 West Colfax Ave., 46601. (219) 233-5123.
Harold G. Nichols, M.D., Medical Director.

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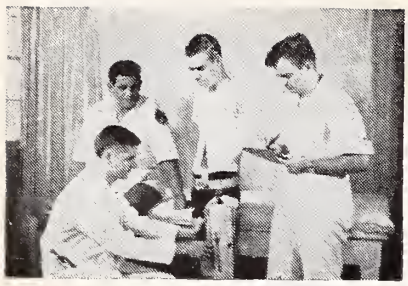

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MENTAL HEALTH

Continued

Terre Haute

*Vigo County Adult and Child Guidance Clinic, 415 North 9th St., 48707. 235-6291.

Gene D. Moore, M.D., Medical Director. Harold E. Wilson, ACSW, Administrator.

Valparaiso

Porter County Guidance Clinic, 808 LaPorte Ave., 46383. (219) 462-5521.

Myron E. Berkson, M.D., Medical Director.

Warsaw

*Four County Mental Health Clinic, Inc., 422 South Buffalo St., 46580. (219) 267-7169.

William Kurosky, Chief Social Worker. ◄

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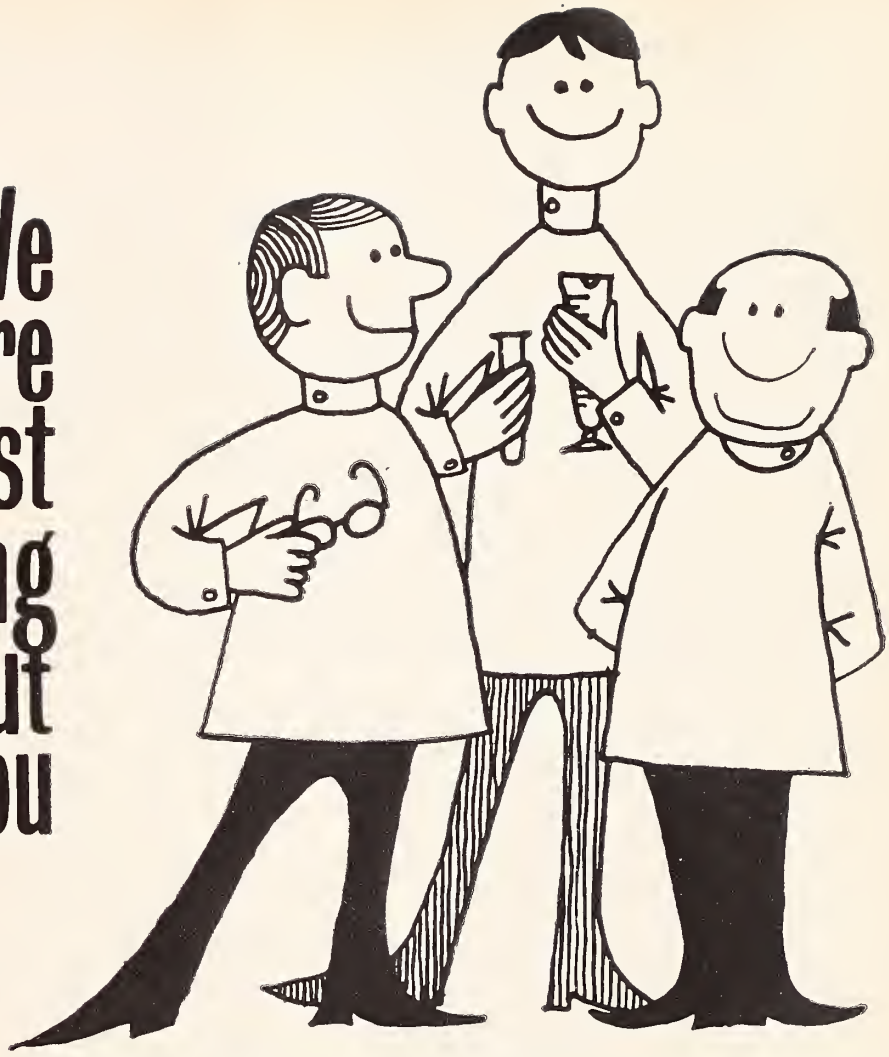

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Poison Control Centers in Indiana

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City	Name and Address	Telephone	Director
Anderson	St. John's Hickey Memorial Hospital 127 West 19th Street	643-3391, Ext. 82 or 35	William L. Stephens
Angola	Cameron Memorial Hospital, Inc. 416 E. Maumee	665-2141	Irene Kenyon, R.N.
Bedford	Dunn Memorial Hospital 1616 23rd Street	BRowning 5-3331, Ext. 32	Marshall S. Wallner
East Chicago	St. Catherine Hospital 4321 Fir Street	EXport 7-3080	Jack M. Troy, M.D.
Elkhart	Elkhart General Hospital 600 East Boulevard	JAckson 3-5350, Ext. 224	C. Richard Yoder, M.D.
Evansville	Protestant Deaconess Hospital 600 Mary Street	HArrison 4-8011, Ext. 247	Edward J. Wolfgang
Evansville	St. Mary's Hospital, Inc. 3700 Washington Avenue	GReenleaf 7-1541, Ext. 328	Kenneth Wilhelmus, M.D.
Evansville	Welborn Memorial Baptist Hospital, Inc. 412 S. E. Fourth Street	HArrison 3-3103 Ext. 336, 337	Charles L. Warner, M.D.
Fort Wayne	Parkview Memorial Hospital 2200 Randalia Drive	743-7341, Ext. 530	William O. Wissman
Fort Wayne	St. Joseph Hospital 730 West Berry Street	ANthony 4121, Ext. 2663	Miss Angeline Holbrook, R.N.
Frankfort	Clinton County Hospital 1300 S. Jackson Street	654-4451	Fred W. Flora, M.D.
Gary	Methodist Hospital of Gary, Inc. 1600 West 6th Avenue	882-9461, Ext. 709	Glen T. Dresher, R. N.

City	Name and Address	Telephone	Director
Goshen	Goshen General Hospital 200 High Park Avenue	KEystone 3-2141 (Emergency Room)	Willard S. Krabill, M.D.
Hammond	St. Margaret Hospital 25 Douglas Street	WEstmore 2-2300, Ext. 700	Herbert I. Arbeiter, M.D.
Indianapolis	*Marion County General Hospital 960 Locke Street	639-6671	Richard W. Dyke, M.D.
Indianapolis	Methodist Hospital of Indiana, Inc. 1604 North Capitol Ave.	WAlnut 4-6411, Ext. 752, 753 or 754	Maxine Bush, R.N.
Indianapolis	St. Francis Hospital North 17th Avenue Beech Grove, Indiana	STate 7-3311	H. N. Grimes, M.D.
Kokomo	Howard Community Hospital 3500 S. Lafountain	GL 7-6611, Ext. 233, 234	Don E. Gillaspy
Lafayette	St. Elizabeth Hospital 1501 Hartford Street	SH 2-0221, Ext. 313 or 317	Sister M. Josita
West Lafayette	Purdue University Student Health Center	92-2446 Ext. 54	Loyal W. Combs, M.D.
LaGrange	LaGrange County Hospital R. R. #1	463-2144	Merle V. Rawson
Lebanon	Witham Memorial Hospital 1124 N. Lebanon Street	LEbanon 143 or 2447, Ext. 44	Thomas Dillon, D.O.
Madison	The King's Daughters' Hospital 112 Presbyterian Ave.	265-5211	Verlie Blanc, R.N.
Marion	Marion General Hospital Wabash and Euclid Avenue	NOrth 4-1228, Ext. 44	R. W. Schroeder, M.D.
Mishawaka	St. Joseph Hospital 215 West 4th Street	BLackburn 9-1431	Abner H. Levkoff, M.D.
Muncie	Ball Memorial Hospital 2401 University Avenue	284-3371, Ext. 241	Junia L. Rice, R.N.
Portland	Jay County Memorial Hospital 505 West Arch Street	726-7131, Ext. 67	Forrest E. Keeling, M.D.
Richmond	Reid Memorial Hospital Spring Grove	25481, Ext. 222	Mrs. Jessie Snyder, R.N.
Shelbyville	William S. Major Hospital 150 W. Washington Street	EX 8-6661	Carolyn Rosenfeld, R.N.

*Poison Information and Treatment Center.

City	Name and Address	Telephone	Director
South Bend	Memorial Hospital of South Bend Poison Control Center 615 North Michigan Street	234-9041, Ext. 258	William B. Frey, M.D.
South Bend	St. Joseph Hospital 811 East Madison Street	CEntral 4-2151	Leslie M. Bodnar, M.D.
Terre Haute	Union Hospital, Inc. 1606 N. Seventh Street	CRawford 0361, Ext. 229	Joseph P. Gillotte, M.D.
Tipton	Tipton County Memorial Hospital 1032 S. Main Street	OSburn 5-7411	George L. Compton, M.D.

ADJACENT STATES

ILLINOIS

City	Name and Address	Telephone	Director
Chicago	Poison Control Center Presbyterian—St. Luke's Hospital 1753 W. Congress Pkwy.	SEeley 8-4411, Ext. 2322	Joseph Christian, M.D.

KENTUCKY

Louisville	Poison Control Center Department of Pediatrics 323 E. Chestnut St.	JUniper 2-1831	Thomas A. Courtenay, M.D.

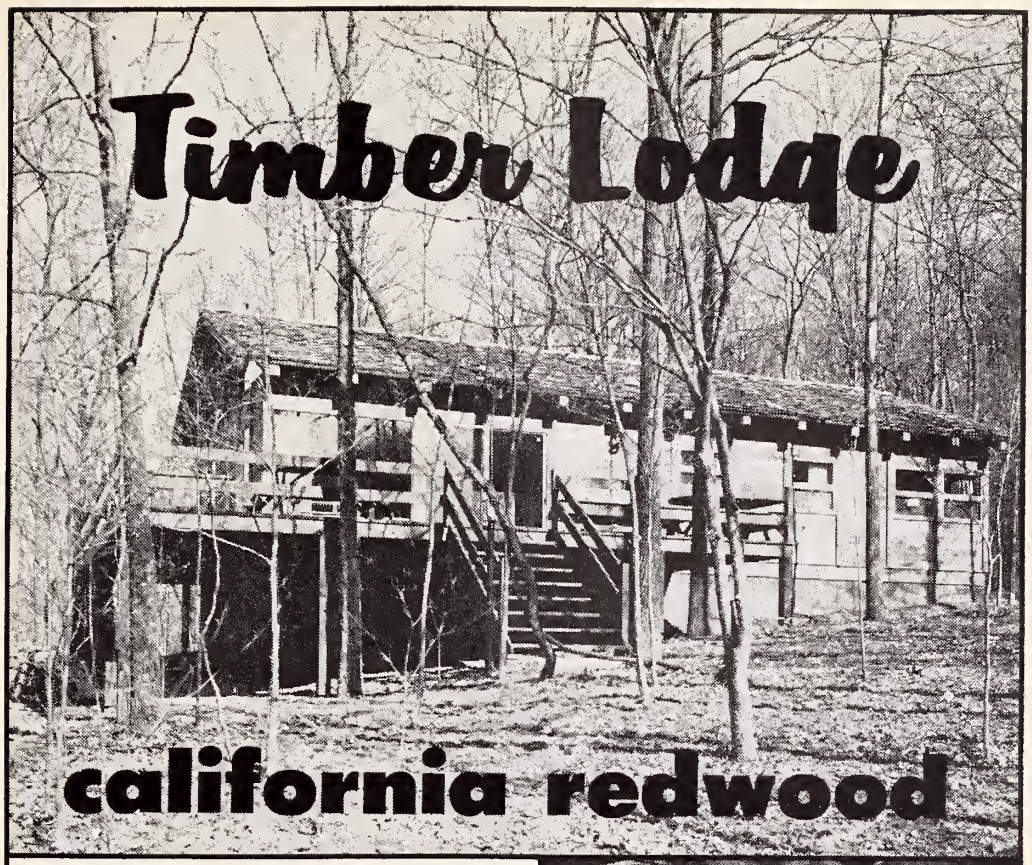
MISSOURI

St. Louis	Poison Control Center Cardinal Glennon Memorial Hospital for Children 1465 S. Grand Ave.	MOhawk 4-7222, Ext. 216	Vincent J. LoPiccolo, M.D.
St. Louis	Poison Control Center St. Louis Children's Hospital 500 S. Kingshighway	FOrest 7-6880	J. Neal Middlekamp, M.D.

OHIO

Cincinnati	*Poison Control Center Cincinnati Academy of Medicine 320 Broadway	721-2345	John A. Williams, M.D.
Columbus	Poison Control Center Children's Hospital 17th St. at Livingston Park	CLearbrook 8-9783	Phillip Ambuel, M.D.

* Informational services only



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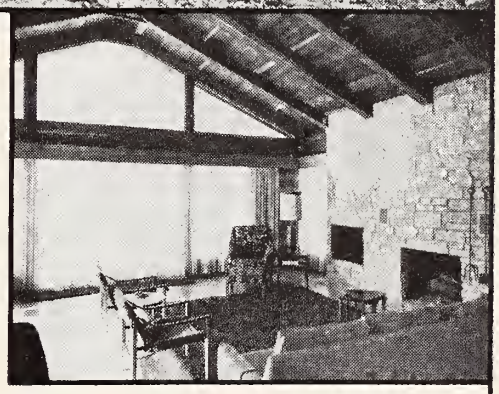

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DISEASE PREVENTION by Immunization and Chemoprophylaxis*

Disease	*Agent Used*	*Recommended For*	*Method of Administration*	*Type of Immunity*	*Duration of Protection*	*Booster Injection*
Cholera	Cholera Vaccine	Adults	—0.5 cc. subcutaneously followed by 1.0 cc. in 7 days.	Active	6 months	0.12-1.0 cc. according to age every six months in endemic areas.
		Children: 6 months to 2 years 3-6 years 7-10 years 11 years and older	Three subcutaneous injections given 7-10 days interval. (1) 0.06 cc.; (2) 0.12 cc.; (3) 0.12 cc. (1) 0.12 cc.; (2) 0.25 cc.; (3) 0.25 cc. (1) 0.25 cc.; (2) 0.5 cc.; (3) 0.5 cc. Adult schedule			
Diphtheria	Diphtheria Antitoxin	All early cases	Usually intramuscular if seen within 48 hours of onset. *Warning:* Test for sensitivity to horse serum. May be used intravenously in severe nasopharynx cases. Dosage dependent on degree of toxicity rather than age and weight. 10,000 units to 75,000 units.	Passive	Short	Additional antitoxin given dependent upon illness and toxicity.
Diphtheria	Diphtheria Toxoid (fluid or alum precipitated or aluminum phosphate adsorbed, for adult use)	Children older than 11 years and adults	Two intramuscular injections of 0.5 cc. each, four to six weeks apart for primary immunization or if individual has not had a booster dose of vaccine for 3 years.	(If toxoid is given then active immunity develops.)	Indefinite	0.5 cc. every year.
Diphtheria	Diphtheria-Pertussis-Tetanus alum precipitated or aluminum hydroxide (or aluminum phosphate) adsorbed diphtheria and tetanus toxoids; containing 12 protective antigenic units of vaccine per 1.5 cc. (DPT)	Children under 5 years	(1) First dose of 0.5 cc. deep intramuscularly—follow injection with 0.1-0.2 cc. air. Given 1-3 months age. (2) Second dose of 0.5 cc. deep intramuscularly one month after first dose. (3) Third dose of 0.5 cc. deep intramuscularly one month after 2nd dose. (4) If 1st dose given earlier than 3 months of age, then give fourth dose 2-3 months after series completed.	Active	Indefinite	D. P. T. booster of 0.5 cc. at 12 to 18 months and 4-5 years. After 5 years booster dose of 0.5 cc. Diphtheria Tetanus Toxoid every 5 years to age 11 years.
Diphtheria	Diphtheria Tetanus Toxoid alum precipitated or aluminum hydroxide (or aluminum phosphate) adsorbed.	Children over 5 years and up to 10 years	(1) First dose of 0.5 cc. deep intramuscularly, follow injection with 0.1-0.2 cc. air. (2) Second dose of 0.5 cc. deep intramuscularly—follow injection with 0.1-0.2 cc. air.	Active	Indefinite	Diphtheria Tetanus booster 0.25 cc. to 0.5 cc. *Caution:* Do not give to children past 10 years of age.

Diphtheria	Diphtheria Toxoid Pertussis Vaccine Tetanus Toxoid Fluid	Rapid immunization of children under 10 years	Three doses of 0.5 cc. given subcutaneously at intervals of 3-4 weeks. In face of epidemic injections may be given at one week intervals.	Active	Antigenic response lower than with the alum preparations and does not last as long.	0.5 cc. every 5 years or in case of injury.
Diphtheria	Diphtheria Toxoid Tetanus Toxoid Fluid	Rapid immunization under 10 years	Three doses 0.5 cc. given subcutaneously at intervals of 3-4 weeks. In face of epidemic injections may be given at intervals of one week.	Active	Antigenic response lower than with alum preparations and does not last as long.	0.5 cc. every 5 years or in case of injury.
Hepatitis, Infectious (Epidemic)	Immune Serum Globulin (Gamma Globulin)	All exposed in household, institution, etc.	Dosage: 0.01 cc. per pound of body weight. Given intramuscularly.	Passive	Brief	Repeat each exposure.
Influenza	Polyvalent Vaccine	Use during epidemics		Active (in 70% + immunized)	Short: 3-4 months	Repeat primary injection and/or injections annually.
		Children	Give total of 1.0 cc. in the course of one week.			
		Adults—especially all with chronic debilitating disease of heart and lungs.	1.0 cc. subcutaneously. *Warning:* Precautions must be taken in individuals sensitive to egg protein. (*Note:* There is less chance of local or systemic reaction if only 0.1 cc. is given intradermally for a total of 2 doses 7-10 days apart).			
Measles (1)	Live, Attenuated Vaccine	12 months and older	1	Active	Unknown	Although the live, attenuated vaccine may be administered safely with or without the simultaneous administration of Measles Immune Globulin, most physicians will wish to use the two combined because of the lessened frequency of clinical reactions.
(2)	Live, Attenuated Vaccine plus Measles Immune Globulin	12 months and older	1 plus Measles Immune Globulin (.01 cc per pound at different site with different syringe)	Active	Unknown	The live attenuated vaccines should be administered only to those 12 months of age or older since residual maternal antibody may interfere with a satisfactory response among younger children.

Disease	Agent Used	Recommended For	Method of Administration	Type of Immunity	Duration of Protection	Booster Injection
Measles (3)	Live, "Further Attenuated Vaccine"	12 months and older	1	Active	Unknown	Clinical reactions following the "Further Attenuated Vaccine" are relatively infrequent; Measles Immune Globulin is not necessary with this Vaccine.
Mumps	Mumps Virus Vaccine, Live, Attenuated	Children 12 months or older Adults who have not had mumps	one dose	Active	Two years known—probably much longer	Not known at present
Meningococcic Meningitis	Sulfadiazine	Control of exposed persons in community groups Children up to 11 yrs.	0.5 m. twice daily for 2 days.	None Chemical prophylaxis only	Very brief—for one exposure only.	Repeat following each exposure.
		Adults (and children 12 yrs. or over)	1.0 gm. twice daily for 2 days.			
Pertussis	Pertussis Vaccine saline suspended (See Double and Triple antigens under "Diphtheria")	Children during epidemic	A total of 12 N. I. H. units divided into 3 equal doses of 4 N. I. H. units (0.5 cc.) given subcutaneously at intervals of one week.	Active	Indefinite	1 year after primary series, 2 years after primary series and then every three years to 6 or 7 years of age.
	Pertussis Vaccine alum precipitated or aluminum hydroxide adsorbed (See Double and Triple antigens under "Diphtheria")	Routine immunization of infants when DPT is contraindicated	A total of 12 N. I. H. units divided into 3 equal doses of 4 N. I. H. units each (0.5 cc.) injected intramuscularly at intervals of 4 to 6 weeks.	Active	Indefinite	18 months—3-4 years. 6-7 years usually given as DPT.
		Exposure Recall		Active	Indefinite	4 NIH units (0.5 cc.) saline suspension subcutaneously if child has not had immunization past 2 years.
Plague	Plague Vaccine—a suspension of 2000 million killed Pasteurella per milliliter	Epidemics and areas with high endemic rate. Adults:	Two injections subcutaneously 7-10 days apart. First injection 0.5 cc.; second, 1.0 cc.	Active	Partial protection for period of 4-6 mos.	1.0 cc. every 4 months as long as danger of epidemic exists.
		Children: 6 months-2 years 2 years-6 years 6 years-10 years	0.06 cc.; 0.12 cc; 0.12 cc. 0.12 cc.; 0.25 cc.; 0.25 cc. 0.25 cc.; 0.50 cc.; 0.50 cc.	Active	Partial protection for period of 4-6 mos.	Booster dose for children is same as first dose of initial series.

Poliomyelitis*	Poliomyelitis (Salk) Vaccine	All Ages	Two injections each 1.0 cc. given intramuscularly at interval of 3-6 weeks. Third injection of 1.0 cc. given 7 months after second.	Active	Not known (Salk has demonstrated adequate antibodies present after 8 years)	Booster dose of 1.0 cc. recommended 8 to 12 months after 3rd dose. Additional booster doses advised if in epidemic area.
	Poliomyelitis trivalent oral (Sabin)	Infants	First dose 6-8 weeks, 2nd dose at 8 weeks, 3rd dose 8-12 months after 2nd. Children, two doses 6-8 wks. apart; third dose 8-12 months. Not necessary in U.S. but if at risk may be immunized as are children.	Active	None	Not known beyond five years.
Rabies	Rabies—hyperimmune serum 1000 units per 40 pounds of body weight Rabies Vaccine 14-21 doses	Licks of abraded skin or mucosa by proven rabid, suspicious, escaped, killed or unknown animal	Hyperimmune serum within 24-72 hours of exposure. Follow within 24 hours with Rabies Vaccine.	Passive immunity from hyperimmune serum	Few weeks	Repeat initial dose hyperimmune serum, but not after beginning Rabies Vaccine series as serum will block antibody production. Booster 10th and 20th day after last dose vaccine.
		Bites of healthy animal, multiple, or face or head bites	Hyperimmune serum. Start vaccine but stop if animal remains normal for 5 days.	Active immunity from Rabies Vaccine	Indefinite	Rabies Vaccine prepared according to Sample method—should not repeat full course—one to 3 injections probably sufficient. More hazardous Egg embryo vaccine—give one injection.
		Bite of healthy animal, other than head or neck	No treatment. If animal becomes suspicious during 14 days observation give serum and vaccine at first suspicious signs.			Booster 10th and 20th day after last dose vaccine.
		Bites—animal rabid, escaped, killed, unknown or any bites by any wild animal	Start treatment immediately, using hyperimmune serum followed by 14-21 doses vaccine, depending upon whether single or multiple bites and location.			Booster 10th and 20th day after last dose vaccine.
		Bat bites and exposure to bats	Hyperimme serum, then start treatment with Rabies Vaccine immediately without waiting for laboratory report. Bats are only animals known to occasionally survive rabies and remain carriers.			Booster 10th and 20th day after last dose vaccine.

Disease	Agent Used	Recommended For	Method of Administration	Type of Immunity	Duration of Protection	Booster Injection
Rocky Mountain Spotted Fever	Rocky Mountain Spotted Fever Vaccine	Not routinely recommended since advent of specific antibiotic therapy. May be used in areas of high incidence among persons of high risk.	Adults: 3 injections each 1.0 cc. subcutaneously or intramuscularly at intervals of one week. Children—under 10 years three injections each 0.5 cc. subcutaneously or intramuscularly at intervals of one week.	Active	One year	1.0 cc. booster annually
Smallpox	Smallpox Vaccine (Vaccinia virus)	Children and adults	Begin at 5-12 months. Administered by multiple pressure technique skin over insertion of left deltoid.	Active	Indefinite, average 3 years	Repeat every 4th year.
Tetanus	**Tetanus Antitoxin**	All cases of puncture wounds and animal bites when person has not been immunized or more than 5 years since last booster.	**Caution: Skin test first for serum sensitivity. Intramuscular injection of 10,000 units antitoxin.**	**Passive**	**10 days**	**Repeat with each injury. Because of hazard to horse serum active immunization with toxoid preferred.**
Tetanus	**Tetanus Toxoid, depot (alum precipitated or adsorbed) (See Double and Triple antigens under "Diphtheria")**	**All**	**Two doses, each 0.5 cc. given intramuscularly, at least one and preferably 2-3 months interval.**	**Active**	**At least 4 years**	**0.5 cc. end first year, then—booster every 2-4 years. Satisfactory recall response after 10 years but is too slow in case of injury. Emergency booster if injured.**
	Tetanus Toxoid, Fluid (See Double and Triple antigens under "Diphtheria")	**All**	**Three doses, each 0.5 cc., subcutaneoulsy or intramuscularly at one month and preferably 2-3 months between doses.**	**Active**	**At least 4 years**	**0.5 cc. end first year, then—booster every 2-4 years. Satisfactory recall response after 10 years but is too slow in case of injury. Emergency booster if injured.**
Typhoid Fever	**Typhoid Vaccine Triple vaccine containing 1000 million S. typhosa and 250 million each of paratyphoid A and B per cc.**	**All persons living in or traveling to areas where disease is endemic or insanitary conditions exist.**	***Adults*** **Three doses, each 0.5 cc. subcutaneously not less than 7 days or more than 28 day intervals between doses. An alternate method is: 0.1 cc.; 0.15 cc. and 0.2 cc. given intradermally not less than 7 nor more than 28 days between doses.** ***Children*** **6 mo.-2 yr.—(1) 0.06 cc.; (2) 0.12 cc.; (3) 0.12 cc. 2 yr.- 6 yr.—(1) 0.12 cc.; (2) 0.25 cc.; (3) 0.25 cc. 6 yr.-10 yr.—(1) 0.25 cc.; (2) 0.50 cc.; (3) 0.50 cc.**	**Active**	**Indefinite—usually at least one year**	**Persons traveling or living in insanitary areas should receive booster of 0.1 cc. intradermally or 0.5 cc. subcutaneously annually. Children's annual booster the same dose as initial dose of each series.**

Typhus Fever	Typhus Fever Vaccine	All persons traveling to or living in areas where epidemic typhus exists.	*Adults* Two doses, each 1.0 cc. at intervals of 7-10 days given subcutaneously. Allergy to egg or chicken protein only contraindication. *Children* Three doses each: 6 mos.-2 yrs.: 0.12 cc. 2 yrs.- 6 yrs.: 0.25 cc. 6 yrs.-10 yrs.: 0.50 cc.	Active	Relative 3-6 months	*Adults* Routine every 6 months dose of 1.0 cc. given subcutaneously or whenever threat of outbreak occurs. *Children* Same dose as in initial series.
Yellow Fever	Yellow Fever Vaccine* (Obtainable only at U. S. P. H. S. Hospital or Yellow Fever Immunization Depots. See footnote where obtainable in Indiana.)	All persons traveling in or through or living in endemic areas. Should receive vaccine 10 days before arrival in area.	One dose 0.5 cc. of a 1:10 dilution of concentrated vaccine, freshly prepared. Given subcutaneously. Should not be given to person ill with virus disease or at same time cowpox virus is given. Children's dose—same as adult.	Active	6 years or longer	As required at present every 10 years repeat immunization. In presence of epidemic repeat primary immunization.

* While many contraindications are listed for various biologicals it should be recognized that in the interest of brevity it was impossible to give all details. In case of doubt consult standard reference for detailed description of biological in question and/or pharmaceutical company's circular accompanying original package of biological.

All of the biologicals listed may be obtained through normal supply channels with the exception of Yellow Fever Vaccine. Because of hazards if yellow fever vaccine is improperly handled it can only be obtained from U. S. P. H. S. depots. In Indiana these depots are:

Indiana University Medical Center
1040 West Michigan Street
Indianapolis
Fridays, 2:00 p.m. to 3:00 p.m. CDT by appointment
Telephone: 639-8877

Elkhart County Health Department
200 Harrison Street
Elkhart, Indiana
1st or 3rd Wednesday each month 2 p.m.
Telephone 26525

Physicians having patients requiring yellow fever immunization should advise person to call or write the above, as inoculations are given by appointment only on one day a week. There is a fee to cover vaccine and administration.
(Revised)

A. L. Marshall, Jr., M.D., *Director*
Division of Communicable Disease Control
Indiana State Board of Health

Class A Narcotic Drugs

The following is a compilation of Class A Narcotic Drugs by trade name, prepared for publication by the Indiana Pharmaceutical Association.

Package	Class A Narcotics by Trade Name
Tab.	Alvodine
Vial	Alvodine
Tab.	Amidone HCl.
Vial	Amidone HCl.
Tab.	A.P.C. Demerol (Demerol 30 mg.)
Supp.	B&O 15A (Opium ½ gr., Belladonna ¼ gr.)
Supp.	B&O 16A (Opium 1 gr., Belladonna ¼ gr.)
	Chlor-Anodyne (Morphine HCl. 2⅞ gr. per oz.)
	Cocaine Solutions
Solvets	Cocaine HCl. 2¼ gr.
Amp.	Codeine Phos. ½ gr. per cc.
H.T.	Codeine Phos. ¼ gr.
H.T.	Codeine Phos. ½ gr.
H.T.	Codeine Phos. 1 gr.
D.T.	Codeine Sulf. 1 gr.
H.T.	Codeine Sulf. ⅛ gr.
H.T.	Codeine Sulf. ¼ gr.
H.T.	Codeine Sulf. ½ gr.
H.T.	Codeine Sulf. 1 gr.
T.T.	Codeine Sulf. ¼ gr.
T.T.	Codeine Sulf. ½ gr.
T.T.	Codeine Sulf. 1 gr.
	Codeine, in combination, if more than 8 grs. per fl. oz. or more than 1 gr. per dosage unit
	Demerol Solutions
Amp.	Demerol 25 mg.—½ cc.
Amp.	Demerol 50 mg.—1 cc.
Amp.	Demerol 75 mg.—1½ cc.
Amp.	Demerol 100 mg.
Amp.	Demerol Atropine 2 cc. (Demerol 100 mg.—2 cc.)
Amp.	Demerol Scopolamine 2 cc. (Demerol 100 mg—2 cc.)
Elix.	Demerol (Demerol 50 mg. per 5 cc.)
	Demerol Disp. Syr. 50 mg.—1 cc.
	Demerol Disp. Syr. 75 mg.—1 cc.
	Demerol Disp. Syr. 100 mg.—1 cc.
Tab.	Demerol 50 mg.
Tab.	Demerol 100 mg.
Vial	Demerol 50 mg. per cc.
Vial	Demerol 100 mg. per cc.
Vial	Demerol Scopolamine (Demerol 50 mg. per cc.)
Tab.	Demerol APAP (Demerol 50 mg.)
Tab.	Demerol Comp. (Demerol 25 mg.)
Tab.	Demerol Lotusate (Demerol 100 mg.)
Tab.	Dicodid 5 mg.
Amp.	Dilaudid HCl. 1/32 gr.—1 cc.
Amp.	Dilaudid HCl. 1/20 gr.—1 cc.
Amp.	Dilaudid HCl. 1/16 gr.—1 cc.
Rect. Supp.	Dilaudid HCl. 1/20 gr.
Syr.	Dilaudid (1 mg.—5 cc.)
	Dilaudid HCl. Solutions
H.T.	Dilaudid HCl. 1/64 gr.
H.T.	Dilaudid HCl. 1/32 gr.
H.T.	Dilaudid HCl. 1/20 gr.
H.T.	Dilaudid HCl. 1/16 gr.
Vial	Dilaudid Sulf. 2 mg. per cc.
	Dionin Solutions
Amp.	Dolophine HCl. 10 mg.—1 cc. (Methadone HCl.)
20 cc. Amp.	Dolophine HCl. 10 mg. per cc.
Syr.	Dolophine HCl. (Methadone HCl. 10 mg. per 30 cc.)
Tab.	Dolophine HCl. 5 mg.
Tab.	Dolophine HCl. 7.5 mg.
Tab.	Dolophine HCl. 10 mg.
Tab.	Donnagesic #2 (Codeine Phos. 1½ gr.)
	Dover's Po. N.F. (Po. Ipecac and Opium)
H.T.	H.M.C. #1 (Morphine HBr. ¼ gr.)
H.T.	H.M.C. #2 (Morphine HBr. ⅛ gr.)
	Hycodan Po.
10 cc. Vial	Hymorphan HCl. 2 mg. per cc.
10 cc. Vial	Hymorphan HCl. 2 mg. per cc. Atropine Sulf. 0.25 mg. per cc.
Amp.	Leritine 1 cc., 25 mg. per cc.
Amp.	Leritine 2 cc., 25 mg. per cc.
Tab.	Leritine 25 mg.
30 cc. Vial	Leritine 25 mg. per cc.
Amp.	Levo-Dromoran 2 mg.—1 cc.
Tab.	Levo-Dromoran 2 mg.
10 cc. Vial	Levo-Dromoran 2 mg. per cc.
Tubex	Meperidine HCl. 50 mg.—1 cc.
Tubex	Meperidine HCl. 75 mg.—1 cc.

Package	Class A Narcotics by Trade Name
Tubex M	Meperidine HCl. 100 mg.—1 cc.
Cap.	Mepergan
Cap.	Mepergan Fortis
Tubex	Mepergan 25—50 mg. per 2 cc.
10 cc. Vial	Mepergan 25—25 mg.— 1 cc.
Tubex	Mepergan 50—50 mg.—1 cc.
10 cc. Vial	Mepergan 50—50 mg.—1 cc.
100 Tab.	Mercodinone
20 cc. Vial	Methadone HCl. 10 mg. per cc.
30 cc. Vial	Methadone HCl. 10 mg. per cc.
Syr.	Methajade
	Morphine Acetate
Elix	Morphine HCl. 1 gr. per fl. oz.
	Morphine Solutions
Amp.	Morphine Sulf. ¼ gr. per cc.
Amp.	Morphine Sulf. ¼ gr., Atropine Sulf. 1/150 gr. per cc.
H.T.	Morphine Sulf. ⅛ gr.
H.T.	Morphine Sulf. 1/6 gr.
H.T.	Morphine Sulf. ¼ gr.
H.T.	Morphine Sulf. ½ gr.
H.T.	Morphine Sulf. 1 gr.
H.T.	Morphine Sulf. ¼ gr., Atropine Sulf. 1/150 gr.
T.T.	Morphine Sulf. ¼ gr.
Amp.	Nisentil HCl. 40 mg.—1 cc.
Amp.	Nisentil HCl. 60 mg.—1 cc.
Vial	Nisentil HCl. 60 mg. per cc.
Tab.	Nodalin (Methadone HCl. 2.5 mg.)

The Four Narcotic Classes

Narcotics are divided in four classifications and are either taxable or exempt, depending upon the addictive quality, strength, form and the presence or absence of other ingredients. Taxable narcotics, **Class A and B,** may be dispensed only upon a prescription order issued by a physician, dentist, veterinarian or other practitioner duly registered under the provisions of the Federal Narcotic Law. Orders from practitioners for other than legitimate medical purposes are not considered valid prescription orders under Federal Law and both the prescriber and the pharmacist may incur criminal penalties for such a violation.

All prescription orders for **Class A Narcotics** must be dated and signed by the prescriber as of the date of issue and, in addition, must contain the full name and address of the patient and the full name,

Continued

Package	Class A Narcotics by Trade Name
Tab.	Nucodan 5 mg.
Amp.	Numorphan HCl. 1 cc. (1.5 mg. per cc.)
Amp.	Numorphan HCl. 2 cc. (1.5 mg. per cc.)
10 cc. Vial	Numorphan HCl. (1.5 mg. per cc.)
Supp.	Numorphan HCl. 2 mg.
Tab.	Numorphan HCl. 10 mg.
Supp.	Numorphan HCl. 5 mgm.
	Opium Po.
	Opium Po. Extract
Rect. Supp.	Opium 1 gr. Belladonna ¼ gr.
Tr.	Opium U.S.P. Deod.
	Pantopon All
	Papine
Cap.	Percobarb 5 mg.
Cap.	Percobarb-Demi 2.5 mg.
Tab.	Percodan 5 mg.
Tab.	Percodan-Demi 2.5 mg.
Amp.	Prinadol 2 mg. 1 cc.
10 cc. Vial	Prinadol 2 mg. per cc.
Amp.	Spasmalgin 1 cc. (Pantopon 1/6 gr., Papaverine HCl. 1/3 gr., atropine sulfate 1/60 gr.)
Tab.	Spasmalgin (Pantopon 1/6 gr., Papaverine HCl. 1/3 gr., atropine sulfate 1/60 gr.)

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address and narcotic registry number of the prescriber. Narcotic prescription orders should be written in permanent form. Prescription orders for narcotics which have been placed in **Class B** must meet all of the requirements above except the prescriber may transmit his prescription order to the pharmacist orally. The pharmacist must reduce the oral prescription order to writing immediately and include the information required for Class A Narcotics but the prescriber's signature is not necessary.

Renewals of narcotic prescription orders are prohibited, except as to exempt preparations. **Class X preparations** are regulated as to narcotic content and must, in addition, contain one or more non-narcotic active medicinal ingredients in therapeutic amounts. Class X narcotic preparations may be procured without an official order form. The pharmacist maintains a required record showing the name of the recipient, his address, the name and quantity of the Class X preparation and the date of delivery.

Class M preparations may contain any quantity of the specified drug with either active or inactive non-narcotic ingredients commonly used in medicinal preparations. The pharmacist is not required to maintain a record of dispositions of Class M preparations because such preparations have been found to have little or no additive properties. Examples of narcotic drugs which, when found in combination with non-narcotic ingredients are included in Class M include narcotine, papaverine, narceine and cotarnine. ◄

(Single copies of the brochure "Prescribing and Dispensing Narcotic Drugs—a Reference for the Health Practitioner" are available free from the Indiana Pharmaceutical Association, 54 Monument Circle, Indianapolis, Ind. 46204.)

Deaths of Indiana Physicians in 1967

(M) Member ISMA, (S) Senior Member, (R) Retired

Name	Age	Date of Death	Address	Cause of death
Wright, Frederick N.	88	Jan. 1	Stilesville	Probable acute cardiac failure; hypertensive cardiovascular disease; cancer of the face.
Majsterek, Stanley J. (M) (R)	62	Jan. 1	Tucson, Ariz. (formerly Crown Point)	Myocardial infarction.
Dukes, Fred M. (S) (R)	78	Jan. 12	Dugger	Arteriosclerotic vascular disease.
Daves, William L. (M)	59	Jan. 14	Evansville	Cerebrovascular accident; arteriosclerosis.
Wiseheart, Oscar H. (S) (R)	92	Jan. 14	North Salem	Cerebral hemorrhage.
Shoup, Homer B. (S)	82	Jan. 20	Greentown	Pneumonia.
Brayton, John R. (M)	67	Jan. 22	Indianapolis	Congestive heart failure.
Faith, Ira L. (M)	46	Jan. 28	Evansville	Coronary heart disease.
Forry, Frank F. (S) (R)	80	Feb. 5	Spartanburg, S. C. (formerly Indianapolis)	Congestive heart disease.
Wehrman, Jule O. (S) (R)	93	Feb. 5	Indianapolis	Arteriosclerosis; heart disease.
Moravec, Arthur E. (M)	61	Feb. 7	Fort Wayne	Pulmonary edema; myocardial disease.
Wilhelmus, Charles (S) (R)	86	Feb. 8	Newburgh	Cerebrovascular ischemia.
Kercheval, John M. (M)	67	Feb. 12	Clinton	Pulmonary fibrosis; pulmonary emphysema.
Westfall, John B. (M)	50	Feb. 20	Indianapolis	Bleeding esophageal varices; cirrhosis of the liver.
Manalan, Maurice M. (M)	48	Feb. 26	Indianapolis	Myocardial infarction.
Staff, Robert A. (M)	62	Mar. 4	Terre Haute	Subarachnoid hemorrhage with encephomalacia.
Bowman, George W. (S)	77	Mar. 8	Indianapolis	Cardiovascular accident due to arteriosclerotic vascular disease.
Meredith, Elwood J. (M)	64	Mar. 26	Richmond	Coronary artery thrombosis.
Row, Perrie Q. (M) (R)	70	Apr. 2	Hammond	Recurrent cerebrovascular accidents; cerebral artery arteriosclerosis.
Gutstein, Richard R. (S)	81	Apr. 3	Kendallville	Congestive heart failure; arteriosclerotic heart disease.
Shallow, Bernard H.	65	Apr. 5	Logansport	Adenocarcinoma of the colon.
Arisman, Ralph K. (M)	61	Apr. 12	South Bend	Cerebrovascular accident.
Hamilton, Orville G. (S)	75	Apr. 18	Bluffton	Severe congestive heart failure; generalized arteriosclerosis.
Wanninger, Horace (S)	72	Apr. 18	Richmond	Cerebral artery thrombosis; generalized arteriosclerosis.
McNabb, George B. (S)	75	Apr. 22	Carthage	Myocardial infarction; coronary thrombosis.
Pettijohn, Frederick L. (S)	93	Apr. 26	Indianapolis	Coronary occlusion; carcinoma of the prostate.
Mathys, Alfred (S) (R)	86	Apr. 29	Louisville, Ky. (formerly Mauckport)	Internal hemorrhage.
Slough, Richard R. (M)	33	Apr. 30	Kendallville	Myocardial infarction.

Continued

Name	Age	Date of Death	Address	Cause of death
Murphy, Eugene C. (M)	59	May 2	South Bend	Myocardial infarction.
Wilson, Guy H. (M)	77	May 9	Bicknell	Dissecting aneurysm of the aorta; arteriosclerosis of the aorta.
Barry, M. Joseph, Sr. (S) (R)	86	May 15	Rochester, Minn. (formerly Indianapolis)	Bronchopneumonia; carcinoma of the ear with metastases.
Clarke, Elton R. (S) (R)	73	May 15	Kokomo	Arteriosclerotic and rheumatic heart disease with failure.
McMichael, Frank J. (S) (R)	82	May 15	Hernando, Fla. (formerly Gary)	Cerebral hemorrhage; acute myeloblastic leukemia.
Bulleit, Lorrein	78	May 19	Indianapolis	Congestive heart failure; arteriosclerotic heart disease.
Lehman, Emery W. (M) (R)	78	May 23	Bluffton	Acute coronary thrombosis; arteriosclerotic myocardial degeneration.
Wright, Bert M.	83	May 23	Shelbyville	Generalized arteriosclerosis.
Taylor, Lon S.	88	June 14	Evansville	Cardiac decompensation; generalized arteriosclerosis.
Malone, Wilfred	68	June 16	San Pierre	Cardiac failure; rheumatoid arthritis.
Warvel, John H., Sr. (S)	73	June 19	Indianapolis	Bronchogenic carcinoma; pulmonary emphysema.
Knowles, Charles Y. (M)	46	June 21	Indianapolis	Result of injuries suffered in a plane crash.
Knowles, Robert P. (M)	43	June 21	Indianapolis	Result of injuries suffered in a plane crash.
Bussard, Clifford F. (S)	81	July 6	South Bend	Acute myocardial infarction.
Kamm, Bernard A. (M)	68	July 7	South Bend	Uremia; nephrosclerosis.
Culloden, William G. (S) (R)	92	July 17	Indianapolis	Cardiovascular disease.
Hays, Everett L. (S) (R)	73	July 19	Indianapolis	Cardiorespiratory failure; pulmonary embolism.
Showalter, John P. (M)	60	July 21	Waterloo	Coronary occlusion.
Symon, William E. (M)	43	July 29	Bluffton	Ventricular fibrillation.
Overpeck, Charles F. (S) (R)	75	Aug. 2	Greensburg	Cardiorespiratory disease; pulmonary emphysema.
Kenoyer, Wilbur L. (M)	48	Aug. 5	Scott AFB, Ill. (formerly Kentland)	Oat-cell carcinoma of the lung.
Price, Walter S. (M)	54	Aug. 10	Indianapolis	Myocardial infarction.
Moore, Martha	70	Aug. 29	Hanover	Generalized arteriosclerosis.
Luckett, Coen L. (S)	75	Sept. 4	Terre Haute	Ruptured abdominal aortic aneurysm; generalized arteriosclerosis.
Gill, Thomas A., Jr. (M)	53	Sept. 9	Muncie	Coronary insufficiency; arteriosclerotic heart disease.
Morrison, William R. (S) (R)	78	Sept. 13	Kokomo	Cerebral thrombosis.
Eberwein, John H. (S) (R)	85	Sept. 16	Indianapolis	Hepatic coma; chronic liver disease; hepatitis.
Flanagan, Estle P. (S) (R)	83	Sept. 16	Walton	Pulmonary embolism.
Fox, C. Philip (M)	69	Sept. 20	Washington	Carcinoma of the pancreas.
Williams, Clifford L. (R)	66	Oct. 1	Indianapolis	Monocytic leukemia.
Gifford, Fred (M)	69	Oct. 3	Indianapolis	Coronary occlusion.
Stoycoff, Christ M. (S) (R)	86	Oct. 17	Gary	Myocardial infarction; arteriosclerotic cardiovascular disease.
Dickens, Karl L. (M)	65	Nov. 8	Martinsville	Adenocarcinoma of the stomach.
Pauly, Leonard R. (M)	44	Nov. 13	Fort Wayne	Coronary thrombosis with myocardial infarction.
Butterfield, Robert M. (M)	56	Nov. 15	Muncie	Myocardial infarction; coronary occlusion.
Hudson, Foster J. (S) (R)	73	Dec. 4	Indianapolis	Acute cardiac arrest; arteriosclerosis, generalized.
Smith, Herbert N. (R)	75	Dec. 15	Brookville	Heart attack.
Craig, Reuben A. (S)	75	Dec. 19	Kokomo	Arteriosclerotic heart disease.
Magennis, Herbert L. (S) (R)	82	Dec. 19	Indianapolis	Bronchopneumonia.
Malcomb, Russell L. (M)	61	Dec. 21	Richmond	Subarachnoid hemorrhage; berry aneurysm.
Lucas, Clarence A.	83	Dec. 28	Indianapolis	Cardiogenic shock; arteriosclerotic heart disease; diabetes mellitus.

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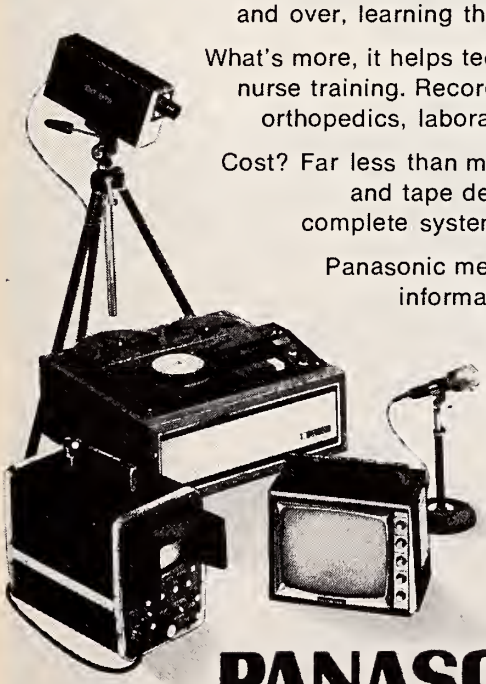

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* Deceased.

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*Alois B. Graham, Indianapolis	1929	1931
*Franklin S. Crockett, Lafayette	1930	1932
*Joseph H. Weinstein, Terre Haute	1931	1933
*Everett E. Padgett, Indianapolis	1932	1934
*Walter J. Leach, New Albany	1933	1935
*Roscoe L. Sensenich, South Bend	1934	1936
*Edmund D. Clark, Indianapolis	1935	1937
Herman M. Baker, Evansville	1936	1938
*Edmund M. Van Buskirk, Ft. Wayne	1937	1939
Karl R. Ruddell, Indianapolis	1938	1940
*Albert M. Mitchell, Terre Haute	1939	1941
Maynard A. Austin, Anderson	1940	1942
*Carl H. McCaskey, Indianapolis	1941	1943
*Jacob T. Oliphant, Farmerburg	1942	1944
*Nelson K. Forster, Hammond	1943	1945
*Jesse E. Ferrell, Fortsville	1944	1946
*Floyd T. Romberger, Lafayette	1945	1947
*Cleon A. Nafe, Indianapolis	1946	1948
*Augustus P. Hauss, New Albany	1947	1949
*C. S. Black, Warren	1948	1950
*Alfred Ellison, South Bend	1949	1951

* Deceased.

Medical Association	Elected	Served
*J. William Wright, Indianapolis	1950	1952
Paul D. Crimm, Evansville	1951	1953
Wm. Harry Howard, Hammond	1952	1954
*Walter L. Portteus, Franklin	1953	1955
Walter U. Kennedy, New Castle	1954	1956
*Elton R. Clarke, Kokomo	1955	1957
M. C. Topping, Terre Haute	1956	1958
Kenneth L. Olson, South Bend	1957	1959
Earl W. Mericle, Indianapolis	1958	1960
Guy A. Owsley, Hartford City	1959	1961
*Harry R. Stimson, Gary	1960	1962
Maurice E. Glock	1961	1963
Donald E. Wood	1962	1964
Joseph M. Black	1963	1965
Kenneth O. Neumann	1964	1966
Eugene S. Rifner	1965	1967

* Deceased.

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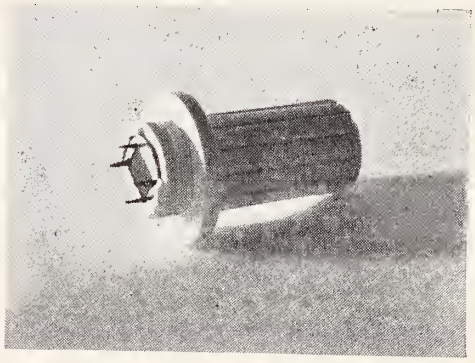

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James L. Hagle
Administrator

Constitution and Bylaws of the Indiana State Medical Association

CONSTITUTION

ARTICLE I.—NAME OF THE ASSOCIATION

The name and title of this organization shall be the Indiana State Medical Association.

ARTICLE II.—PURPOSE OF THE ASSOCIATION

The purposes of this Association shall be to federate and bring into one compact organization the medical profession of the State of Indiana, and to unite with similar societies of other states to form the American Medical Association; to extend medical knowledge and advance medical science; to elevate the standard of medical education; to promote friendly intercourse among physicians; to protect its members against imposition; and to enlighten and direct public opinion in regard to the great problems of medical care, and public health, so that the profession shall become more capable and honorable within itself and more useful to the public in the prevention and cure of disease and in prolonging and adding comfort to life.

ARTICLE III.—COMPONENT SOCIETIES

Component societies shall consist of those county medical societies which hold charters from this Association.

ARTICLE IV.—COMPOSITION OF THE ASSOCIATION

Section 1.—This Association shall consist of Active Members, Associate Members, Senior Members and Honorary Members.

Sec. 2.—*Active Members.*—The active members of this Association shall be the members of the component county medical societies, and no county medical society shall grant active membership therein on a basis that does not include membership in the Indiana State Medical Association.

Sec. 3.—*Associate Members.*—Members of the Indiana State Dental Association in good standing are, by virtue of their membership therein, made associate members of the Indiana State Medical Association.

Sec. 4.—*Senior Members.*—Senior members shall be physicians of the State of Indiana who have attained the age of seventy years and have held membership in the Indiana State Medical Association for twenty years or more, and who, upon their application, have been certified to the Executive Secretary as eligible for such membership by the county societies of which they are members. Eligibility to senior status shall begin the year after the member reaches the age of seventy.

Sec. 5.—*Honorary Members.*—Honorary members shall consist of teachers, scientists and others who have rendered highly meritorious service to the profession of medicine, and of physicians and surgeons of distinction, upon whom the Association may, through vote of the House of Delegates, desire to confer such membership as a special honor.

Sec. 6.—*Rights and Privileges of Members*—Active members and senior members shall have the same rights and privileges except as follows:

a. Senior members shall not be required to pay membership dues in the State Association.

b. If senior members desire to receive THE JOURNAL of the State Association, they shall pay the regular subscription price therefor.

c. Senior members who desire the benefit of medical defense as provided by the Bylaws of this Association shall pay the amount stipulated in Section 1, Chapter XXIX of the Bylaws for this coverage.

d. Honorary members hereafter elected shall hold such membership as an honor and distinction and shall have the right to attend meetings of the Association. They shall have the privilege of participating in discussions but shall have no right to vote or to hold office. They shall not be required to pay membership dues in the State Association.

ARTICLE V.—HOUSE OF DELEGATES

The House of Delegates shall be the legislative and business body of the Association and shall consist of (1) Delegates, or their designated alternates, elected by the component county societies; (2) the Councilors, or their designated alternates, and (3) the ex-presidents of the Indiana State Medical Association. The following shall be *ex officio* members: the President, the President-elect, the Executive Secretary, the Treasurer and Assistant Treasurer of this Association, and the delegates to the American Medical Association, all without power to vote, except in case of a tie vote, when the President or person presiding shall cast the deciding vote.

ARTICLE VI.—COUNCIL

The Council shall consist of (1) the Councilors with power to vote, and their duly elected alternates, each of the latter without power to vote, except in the absence of his Councilor; and (2) *ex officio* the President, President-elect, Treasurer with power to vote and Assistant Treasurer without power to vote except in case the Treasurer be absent. Besides its duties mentioned in the Bylaws, it shall constitute the Board of

Trustees of this organization, having full charge and control of all the property of the Association. It shall have full authority and power of the House of Delegates between sessions of the House of Delegates, except that it shall not make changes in the laws governing the Association nor exercise legislative functions, except as stated in the By-laws, and at all times shall be the finance committee of the Association. Seven Councilors shall constitute a quorum.

ARTICLE VII.—SECTIONS AND DISTRICT SOCIETIES

The House of Delegates may provide for a division of the scientific work of the Association into appropriate sections; and for the organization of such Councilor District Societies as will promote the best interests of the profession, such societies to be composed exclusively of members of component county societies. Councilor districts shall be defined by the House of Delegates.

ARTICLE VIII.—CONVENTION AND MEETINGS

Section 1.—The Association shall hold an Annual Convention during which there shall be held such general and section meetings as the Association through its duly constituted officers and committees may provide for.

Sec. 2.—The House of Delegates shall select the place five years in advance for holding the Annual Convention. The time for the convention shall be fixed by the Council, and the Council shall have the power also to change the place for holding the convention where conditions may create difficulties in holding a successful convention at the place designated by the House of Delegates.

Sec. 3.—Special meetings of either the Association or the House of Delegates shall be called by the President on petition of twenty delegates or fifty members. Upon receipt by the president of such a petition of twenty delegates, or fifty members, the president shall within 30 days thereafter issue a call for such special meeting at a time and place to be fixed by the president. The president, in specifying the time of such special meeting, shall fix the same as soon thereafter as reasonable and suitable arrangements can be made.

ARTICLE IX.—OFFICERS

Section 1.—The officers of this Association shall be a President, a President-elect, an Executive Secretary, a Treasurer, an Assistant Treasurer and thirteen Councilors, each of whom shall be a member, except the Executive Secretary, who need not necessarily be either a physician or a member.

Sec. 2.—The officers, except the Councilors and the Executive Secretary, whose election has been provided for hereinafter, shall be elected annually. The terms of elected Councilors shall be for three years and approximately one-third of the number shall be elected annually. No Councilor shall be eligible to serve longer than two consecutive three-year terms, effective with the beginning of his next election following the adoption of this amendment.

All of these officers shall serve until their successors are elected and installed. Provided, that if any elected Councilor fails, without reason acceptable to the Council, in any one calendar year to attend a majority of the meetings of the Council, he shall thereby cease to be a Councilor, and the Executive Secretary shall thereupon take action in accordance with Section 4 of this article.

Sec. 3.—The officers of this Association with the exception of the Executive Secretary shall be elected by the House of Delegates as the first order of business at the final meeting of the House of Delegates, and no person shall be elected to any such office who has not been an active member of the Association for the preceding two years.

Sec. 4.—The Councilors shall be elected by the respective district societies. If any district fails to meet and elect its Councilor by the time of expiration of the incumbent's term of office, the Executive Secretary of the Association shall cause a special meeting to be called by said district society for the purpose of such election.

Sec. 5.—Each Councilor district shall elect an alternate Councilor whose term of office shall be the same as the Councilor, namely three years. The alternate Councilor shall be elected in a year during which there is no Councilor elected.

The duties of the alternate Councilor shall be:

1. To represent the Councilor district in the absence of the regularly elected Councilor.

2. To vote only in the absence of the regularly elected Councilor either in the House of Delegates or in Council meetings where he represents the regularly elected Councilor.

Sec. 6.—Any officer may be removed from office after a hearing before the Council, on thirty days' notice, on charges in writing, upon a vote of three-fourths of the members of the Council.

Sec. 7.—In event of the death, resignation, removal, or disability of the President, the President-elect shall succeed to the presidency. In the event of the death, disability, resignation or removal of both the President and the President-elect, the chairman of the Council shall become President pro tem and as such shall, within a period of sixty days, call a special session of the members of the House of Delegates for the purpose of electing members to fill these vacancies, who shall serve until the next regular meeting of the House of Delegates, at which time both a President and a President-elect shall be elected, both of whom shall take office immediately upon their election.

Sec. 8.—A vacancy in the office of Treasurer or Assistant Treasurer shall be filled by an election by the Councilors at the next regular meeting of the Council following the occurrence of such vacancy.

Sec. 9.—In the event of a vacancy occurring from any cause, except expiration of the term of office, in the office of any district councilor, the duly elected alternate councilor from the same district shall succeed to the office of councilor in that district for the unexpired term of said councilor.

In the event vacancies occur in any councilor district in the offices of both councilor and alternate councilor, the vacancies shall be filled by an election by the members of the association within the councilor district in which such vacancies occur. A call for such elections shall be issued by the Executive Secretary of the State Association following conference with the officers of the district organization. The call shall state the time and place of holding the election and shall be sent registered mail to the county secretary as filed in the State secretary's office of each component society within the district. Such call shall be mailed within ten days after the State secretary has learned of the vacancies. The election may be held at a special or regular meeting in which other business than the election may be transacted. Such election shall be held within fifteen days after the secretary of the State Association shall have mailed such call.

Sec. 10.—None of the officers shall receive compensation except the Executive Secretary, who shall be employed by the Council, and the Council shall fill any vacancy in that office.

ARTICLE X.—RECIPROCITY OF MEMBERSHIP WITH OTHER STATE SOCIETIES

In order to broaden professional fellowship, this Association is ready to arrange with other State Medical Associations for an interchange of certificates of membership so that members moving from one state to another may avoid the formality of re-election.

ARTICLE XI.—INCOME AND EXPENSES

Funds for carrying on the activities of this Association shall be raised by the following means:

a. Membership dues to be collected by the component county societies in connection with the dues for such component societies. The amount of the dues of each component society shall be fixed by the society itself; and the amount of dues for this Association shall be fixed from time to time by the House of Delegates.

b. Voluntary contributions.

c. Revenues derived from the Association's publications.

d. Any other manner approved by the House of Delegates.

Funds may be appropriated by the House of Delegates to defray the expenses of the Association, for publications, and for such other purposes as will promote the welfare of the profession. All motions and resolutions appropriating funds must be referred to the Executive Committee and Council for approval before final action is taken thereon.

ARTICLE XII.—REFERENDUM

Section 1.—A General Meeting of the Association may, by a two-thirds vote of the members present, order a general referendum on any question pending before the House of Delegates, and when so ordered the House of Delegates shall submit such question to the members of the Association, who may vote by mail or in person, and if the members voting shall comprise a majority of all members of the Association, a majority of such vote shall determine the question and be binding on the House of Delegates.

Sec. 2.—The House of Delegates may, by a two-thirds vote of its own members, submit any question before it to a general referendum, as provided in the preceding section, and the result shall be binding on the House of Delegates.

ARTICLE XIII.—THE SEAL

The Association shall have a common Seal, with power to break, change or renew the same at pleasure.

ARTICLE XIV.—AMENDMENTS

The House of Delegates may amend any article of this Constitution by a two-thirds vote of the delegates present at any Annual Convention, provided that such amendment shall have been presented in open meeting at the previous Annual Convention, and that it shall have been published twice during the year in THE JOURNAL of this Association.

BYLAWS

CHAPTER I.—MEMBERSHIP

Sec. 1.—Every county society shall include by January 1, 1967, as a part of their Constitution or Bylaws the following: Every person becoming an active member after January 1, 1967, shall occupy a provisional status for two years immediately following his admission to membership in this society, during which period he must successfully complete an orientation course to be presented at stated intervals by the Council of the Indiana State Medical Association or one of its commissions. The form and content of this course shall be prescribed by the Council of Indiana State Medical Association. Unless excused by the said Council for good cause shown, failure to attend and successfully complete the course within the two-year period shall automatically revoke the delinquent's membership and terminate all of his rights and privileges as a member, and he shall thereafter, for a period of one year, be ineligible for membership in any component county society.

Sec. 2.—The term "Member" as used in these Bylaws unless otherwise indicated shall mean both active and senior members of component county

Medical societies who hold either the Degree of Doctor of Medicine or Bachelor of Medicine.

Sec. 3.—Any physician who is a member in good standing of a component county society and who has paid to this Association his annual dues is a member in good standing of the Indiana State Medical Association, provided, however, that he is a citizen of the United States of America, or has filed his declaration of intention of becoming a citizen and his first citizenship papers are in full force and effect.

Sec. 4.—No person whose license to practice medicine has been suspended or revoked or who is under sentence of suspension or expulsion from a component society, or whose name has been dropped from its roll of members, shall be entitled to any of the rights or benefits of this association or of a component county society, nor shall he be permitted to take part in any of their proceedings until he has been relieved of such disability.

Sec. 5.—Each member in attendance at the Annual Convention shall register by indicating the component society of which he is a member. When his right to membership has been verified, by reference to the roster of his society, he shall receive a badge, which shall be evidence of his right to all the privileges of membership at that convention. No member shall take part in any of the proceedings of an Annual Convention until he has complied with the provisions of this section.

CHAPTER II.—GENERAL MEETINGS

Section 1.—General Meetings shall mean all meetings planned for attendance by all registered members, and shall include those meetings in which guests of registered members or the general public are also invited. The address of the President may be delivered in a General Meeting, and the programs of General Meetings shall be arranged by the Executive Committee except where scientific papers are included, in which event the scientific part of the program shall be arranged by the Commission on Convention Arrangements, with the sanction and approval of the officers.

Sec. 2.—The General or Section Meetings may recommend to the House of Delegates the appointment of committees or commissions for scientific investigation of special interest and importance to the profession and public.

Sec. 3.—All scientific papers read before the Association or any of the sections shall become its property and shall not be published in any but the official publications of this Association, except by consent of the officers and the Editorial Board of this Association. Each such paper shall be deposited with the Executive Secretary when read.

Sec. 4.—The Council shall appropriate from the funds of the Association for such an amount as in the discretion of the Council shall be reasonably needed for that purpose, and no commitments shall be made for expenses in excess of the amount appropriated for such Convention. The funds so appropriated shall, upon the approval of the Executive Committee, be expended at the direction of the Commission on Convention Arrangements appointed by the President for the Convention for which the appropriation is made. All money in excess of that expended for actual expenses incurred shall revert each year to the treasury of the Association.

CHAPTER III.—SECTIONS

Section 1.—During the Annual Convention the Association in addition to the general meetings may hold the following section meetings:

a. Surgical.
b. Internal Medicine.
c. Eye, Ear, Nose, and Throat.
d. Anesthesia.
e. General Practice.
f. Obstetrics and Gynecology.
g. Preventive Medicine and Public Health.
h. Radiology.
i. Nervous and Mental Diseases.
j. Pathology.
k. Pediatrics.
l. Any other sections that hereafter may be provided for by the House of Delegates.

Sec. 2.—The officers of each section shall be a Chairman, a Vice-Chairman, and a Secretary, and they shall preside over the meetings of the sections and shall be responsible to the Committee on Scientific Work for the section speakers and papers.

Sec. 3.—The election of officers of the sections shall be the last order of business of the last meeting of the sections during the Annual Convention.

Sec. 4.—No section meeting shall be allowed to conflict with a general meeting.

CHAPTER IV.—HOUSE OF DELEGATES

Section 1.—The House of Delegates may meet on the day before the date set for the beginning of the general registration of the attendance at the Annual Convention. It may adjourn from time to time as may be necessary to complete its business, provided that its hours shall conflict as little as possible with the General or Section Meetings. It shall meet on the last day of the Annual Convention for the election of officers for the ensuing year, and for the completion of any business previously introduced. The order of business shall be arranged as a separate section of the program.

Sec. 2.—Each component county society shall be entitled to send to the House of Delegates each year one delegate for every fifty members and one for each major fraction thereof; but, irrespective of the number of members, each component society which has made its annual report and paid its assessments, as provided in this Constitution and Bylaws, shall be entitled to one delegate, except that where a component society is made up of physicians of more than one county, each county shall be entitled to at least one delegate and one alternate delegate who shall be a resident of the county he represents as a delegate or alternate delegate and who shall be selected by the physicians residing in such county.

The number of Delegates to which each Component Society is entitled shall be based upon the number of members on record in the office of the Executive Secretary in good standing with current dues fully paid as of December 31 of the preceding year.

The names of duly elected delegates and alternates from each component society shall be sent to the Executive Secretary of this Association on or before February first prior to the Annual Convention at which such delegates are to serve. No one shall be entitled to a seat in the House of Delegates unless his credentials as a delegate or alternate, properly signed by the secretary of his county society, be presented to the Committee on Credentials at the time of the Annual Convention.

Sec. 3.—Fifty delegates shall constitute a quorum.

Sec. 4.—The House of Delegates shall:

a. Elect representatives to the House of Delegates of the American Medical Association in accordance with the Constitution and Bylaws of that body.

b. Divide the State into Councilor Districts, specifying what counties each district shall include, and when the best interests of the Association and profession will be promoted thereby, organize in each district a medical society, and all members of component county societies, and no others, shall be members of such district societies.

c. Have authority to appoint committees for special purposes from among members of the Association who need not be members of the House of Delegates. Such committees shall report to the House of Delegates, and the members of such committees may be present and participate in the debate on their reports.

d. Approve all memorials and resolutions issued in the name of the Association before the same shall become effective.

Sec. 5.—Proposals calling for appropriations of funds by the House of Delegates shall be submitted to the Executive Committee and the Council for their recommendation before final action of the House.

Sec. 6.—At the first meeting the President shall announce the membership of the reference committees, as hereinafter provided for, and any other committees considered by him necessary to expedite the business of the Association.

Sec. 7.—All resolutions to be presented to the House of Delegates for action shall be prepared and mailed to the Executive Secretary of the Association so that he will receive them not later than forty-five days prior to the meeting of the House of Delegates to which the resolutions will be presented for action.

Provided, that where a resolution has been first submitted to the Committee on Rules and Order of Business together with a written statement setting forth the reasons why said resolution was not mailed to the Executive Secretary more than 45 days prior to the meeting of the House of Delegates and also setting forth in said written statement the reason why said resolution is of such an emergency nature that it cannot wait until the next meeting of the House, and that said Committee on Rules and Order of Business has approved said resolution for submission to the House, and that each delegate shall be furnished a copy before the next meeting of the House, then this subsection of the Bylaws may be suspended with respect to said resolution upon a two-thirds vote of the House of Delegates.

Sec. 8.—The final vote on any issue calling for changes in dues or in dues structure shall be by roll call vote. Each member's vote shall be permanently recorded and no suspension of this rule will be allowed on the final vote of such an issue.

CHAPTER V.—ELECTION OF OFFICERS

Section 1.—The election of officers shall be the first order of business of the House of Delegates after the reading of the minutes on the last day of the Annual Convention.

Sec. 2.—All elections shall be by ballot, and a majority of the votes cast shall be necessary to elect. In case no nominee receives a majority on the first ballot, the nominee receiving the lowest number of votes shall be dropped and a new ballot taken.

Sec. 3.—Any person known to have solicited votes for or sought any office within the gift of this Association shall be ineligible for any office for two years.

Sec. 4.—The President, President-elect, Treasurer and Assistant Treasurer shall serve from the termination of the annual meeting of the House of Delegates in which the President-elect, Treasurer and Assistant Treasurer are elected until the termination of the succeeding annual meeting of the House of Delegates.

Sec. 5.—The officers of the Association shall be installed by taking the following oath of office: I, _____, solemnly swear that I shall carry out to the best of my ability, the duties of the office of the Indiana State Medical Association to which I have been elected.

I shall strive constantly to maintain the ethics of the medical profession and to promote the public health and welfare. I shall dedicate myself and my office to improving the health standards of the American people and to do the task of bringing increasingly improved medical care within the reach of every citizen.

I shall uphold the Constitution of the United States of America and of the State of Indiana, the Constitution and Bylaws of the American Medical Association and the Constitution and Bylaws of the Indiana State Medical Association at all times.

I shall champion the cause of freedom in medical practice and freedom for all my fellow Americans. To these duties and obligations, I pledge myself, so help me God.

CHAPTER VI.—DUTIES OF OFFICERS

Section 1.—The president, or a member designated by him, shall preside at all general meetings of the Association and of the House of Delegates. The President shall appoint all committees not otherwise provided for; he shall deliver an annual address at such time as may be arranged by the Executive Committee, and shall perform such other duties as custom and parliamentary usage may require. He shall be the real head of the profession of the state during his term of office, and as far as practicable, shall visit by appointment the various sections of the state and assist the Councilors in building up the county societies and in making their work more practical and useful.

Sec. 2.—The President-elect's term of office shall be for one year, at the completion of which he succeeds to the presidency. While President-elect, he shall assist the President in the discharge of his duties.

Sec. 3.—The Treasurer shall give bond at the expense of the Association in such an amount as shall be required by the Council. He shall receive all bequests and donations to the Association and shall demand and receive all funds due the Association except accounts due THE JOURNAL in the conduct of its business. The funds of the Association shall be deposited in a depository or depositories designated by the Executive Committee, and withdrawals from such funds shall be made on checks or drafts signed by the Treasurer and the Chairman of the Council. He shall present to the House of Delegates annually a report of the receipts and expenditures, and the state of the funds in his hands, and shall subject his accounts to an annual audit by a Certified Public Accountant.

The Assistant Treasurer shall give bond at the expense of the Association in such amount as shall be required by the Council unless he is included in the coverage of a blanket or position bond. In case of death, or incapacity of the Treasurer, he shall succeed to all the duties and rights of the Treasurer until a new Treasurer be elected. In the absence of the Treasurer, he shall attend to the duties and rights of the Treasurer during such absence and he shall also perform such duties of the Treasurer as may be delegated and assigned to him by the Treasurer.

Sec. 4.—The Executive Secretary shall be the directing manager of the Association's headquarters and JOURNAL offices, and shall supervise the work of all salaried employees in the Association offices. Such supervision shall be subject to directives from the House of Delegates, the Council, the Executive Committee, and the President of the Association. He shall discharge the administrative functions of the Association not within the duties of other officers or of committees to perform. He shall assist, at their request, all officers and committees, and shall keep himself informed in regard to non-professional matters affecting the medical profession, for the purpose of keeping himself qualified to perform the services herein mentioned. He shall be responsible for the execution and carrying out of the policies of the Association and in that connection shall perform all specific tasks committed to him by the committees, the Council, and the officers of this Association. The amount of his salary shall be fixed by the Executive Committee on approval of the Council.

Sec. 5.—The necessary expenses of the above officers incurred in the line of duty herein imposed shall be allowed for in the budget, but excepting the Executive Secretary, this shall not include the expenses of attending the Annual Convention.

CHAPTER VII.—COUNCIL

Section 1.—The Council shall meet as follows: 1. January, April, and July of each year on dates and at places fixed by the Council. 2. On the day preceding the first day for the scientific meetings of the Annual Convention of the Association. 3. On the last day of the Annual Convention of the Association after the adjournment of the House of Delegates. 4. At such other times as necessity may require, subject to the call of the Chairman, or on petition of three Councilors. It shall hold no meeting that will conflict with any meeting of the House of Delegates. It shall elect a Chairman, and a Clerk, who, in the absence of the Executive Secretary of the Association, shall keep a record of its proceedings. It shall, through its Chairman, make an annual report to the House of Delegates. It shall organize itself at the meeting following the final session of the House of Delegates by electing its chairman who shall serve for one year. The chairman of the Council shall be elected by secret ballot. The number of terms of the chairman shall be limited to not more than three in succession.

Terms of Councilors shall begin with the first meeting of the Council following the final session of the House of Delegates at the Annual Session.

Sec. 2.—Each Councilor shall be organizer, peacemaker, and censor for his district. He shall visit the counties in his district at least once a year for the purpose of organizing component societies where none exist; for inquiring into the condition of the profession, and for improving and increasing the zeal of the county societies and their members. He shall make an annual report of his work and of the condition of the profession of each county in his district, the same to be published in the number of THE JOURNAL which is issued immediately preceding the Annual Convention. The House of Delegates may take such action, if any, as it deems appropriate upon such reports. The necessary expenses incurred by such Councilor in the line of the duties herein imposed may be allowed by the Council on a properly itemized statement, but this shall not be construed to include his expense in attending the Annual Convention of the Association.

Sec. 3.—The Council shall, through its officers and otherwise, give diligent attention to and foster the scientific work and spirit of the Association, and shall study and strive constantly to make each Annual Convention a stepping stone to future ones of higher interest.

Sec. 4.—The Council shall, in connection with the House of Delegates, consider and advise as to the interests of the profession and of the public in those important matters wherein it is dependent upon the profession, and shall use its influence to secure and enforce all proper medical and public health legislation and to diffuse popular information in relation thereto.

Sec. 5.—The Council shall make careful inquiry into the condition of the profession of each county in the state and shall have authority to adopt such methods as may be deemed most efficient for building up and increasing the interest in such county societies as already exist, and for organizing the profession in counties where societies do not exist. It shall especially and systematically endeavor to promote friendly intercourse among physicians of the same locality and shall continue these efforts until every physician in every county of the state who can be made reputable has been brought under medical society influence.

Sec. 6.—The Council shall encourage postgraduate and research work, as well as home study, and shall endeavor to have the results utilized and intelligently discussed in the county societies.

Sec. 7.—The Council shall, upon application, provide and issue charters to county societies organized to conform to the spirit of this Constitution and Bylaws.

Sec. 8.—In sparsely settled sections it shall have authority to organize the physicians of two or more counties into societies to be designated by hyphenating the names of two or more counties so as to distinguish them from district and other classes of societies; and these societies, when organized and chartered, shall be entitled to all the privileges and representation provided herein for county societies, until such counties may be organized separately.

Sec. 9.—The Council shall be the Board of Censors of the Association. It shall consider all questions involving the rights and standings of members whether in relation to other members, to the component societies, or to this Association. All questions of an ethical nature brought before the House of Delegates or the General or Section Meetings shall be referred to the Council without discussion. It shall hear and decide all questions of discipline affecting the conduct of members of component societies on which an appeal is taken from the decision of an individual Councilor, and its decision in all such matters shall be final.

Sec. 10.—The Council shall provide for and superintend all publications of the Association, and shall have authority to appoint an editor and such assistants as it deems necessary, and fix the amounts of their salaries. The proceedings of the Council for the year shall be reported to the House of Delegates at the Annual Convention and be published in the number of THE JOURNAL which immediately precedes the Annual Convention.

Sec. 11.—In the interim between the meetings of this Association the Council shall be the executive body of the Association with full power to fill vacancies or transact any business that emergencies or the welfare of the Association may require.

Sec. 12.—The Council shall at its meeting following the close of the House of Delegates elect two members of the Association, at large, or of the Council, who, with the President, the President-elect, the Treasurer, and the Chairman of the Council, shall constitute and be known as the Executive Committee. If such members of the Executive Committee be not members of the Council they shall not have the power of vote in the Council.

CHAPTER VIII.—ORGANIZATION OF ACTIVITIES AND RESPONSIBILITIES

Section 1.—The work of the Association, the performance of which is not provided for elsewhere in the Constitution or Bylaws, and is not carried on in the meetings of the Council or of the House of Delegates, or by Special Committees created by the Executive Committee, the Council, or the House of Delegates, shall be performed by the following standing committees and commissions:

The Executive Committee
The Grievance Committee
The Student Loan Committee
The Medical-Legal Review Committee
The Future Planning Committee
The Commission on Convention Arrangements
The Commission on Constitution and Bylaws
The Commission on Legislation
The Commission on Public Information
The Commission on Governmental Medical Services
The Commission on Public Health
The Commission on Voluntary Health Agencies
The Commission on Medical Economics and Insurance
The Commission on Inter-Professional Relations
The Commission on Medical Education and Licensure
The Commission on Special Activities
The Commission on the Aged and Aging

The difference between committees and commissions is shown in the provision of these Bylaws pertaining to their work and composition.

Sec. 2.—Unless otherwise provided in these Bylaws, the committees shall be appointed by the President with the chairman of each committee designated by him, and the number constituting each committee shall be as indicated in the section of these Bylaws pertaining to each particular committee.

Sec. 3.—Each commission will consist of fifteen members appointed by the President, with at least one member from each councilor district. The original appointees in each commission shall be divided into three groups by lot. The first group shall serve three years; the second, two years; and the third, one year. Thereafter, each incoming President shall appoint five members of each commission to fill the vacancies resulting from the

expiration of the terms of members, and such appointments shall be for three years. The President shall also appoint members to fill the unexpired term where any vacancy occurs through death, resignation or otherwise.

Sec. 4.—The President shall have the power, with the approval of the Council, to remove any member of any committee or commission where such member, for any reason, does not or cannot work at attempting to perform the duties pertaining to membership on such committee or commission.

Sec. 5.—Unless otherwise provided in these Bylaws, no member of either a committee or a commission shall serve on the same committee or commission more than two consecutive terms, but this shall not prevent him serving more than two terms if the term of another member intervenes. The time given to the serving of an unexpired term shall not be considered in determining the period within which a member may serve consecutively.

Sec. 6.—Within sixty days after the meeting of the State Convention, the President will call all commissions and committees into a joint meeting in which he will give a statement of the duties and responsibilities of all committees and commissions, call special attention to any immediate problems confronting the Association, and assign such problems or parts thereof to appropriate committees and commissions. Then this joint meeting will divide into meetings of the separate commissions, at which time the commissions and committees will organize by the election of chairman, vice-chairman and secretary, unless otherwise provided for in these Bylaws. In these meetings the commissions may provide for such subcommittees within the separate commissions as they may deem advisable. Each committee or commission shall have the right to call upon other committees, commissions or members of the profession for counsel and advice with respect to its work.

Sec. 7.—Each committee and commission shall have the privilege and is encouraged to have joint meetings with any like committee or commission of the Auxiliary where such like committee or commission exists, for the purpose of coordinating their activities to make them more effective in the medical service of the public and the intent of the Association.

Sec. 8.—Each committee and commission shall have the duty and responsibility of keeping constantly and currently informed on the matters within the area of its special interest and activity; of studying the conditions within that area with the purpose of finding possibilities of improvement; of finding the best solutions it can to the specific problems referred to it; of contributing in its area to the achievements of the Association as a whole in the protection and improvement of the health of the whole human family and finally of making all its efforts useful by passing on to the Association in the most effective manner possible the results of its studies and activities in its own area of special interests.

Sec. 9.—The President and Executive Secretary shall be *ex officio* members of all the foregoing committees and commissions without voting rights where their inclusion on the committee or commission is not otherwise provided for in these Bylaws.

CHAPTER IX.—THE EXECUTIVE COMMITTEE

Section 1.—The Executive Committee, constituted as provided in Section 12 of Chapter VII of these Bylaws, shall hold its first meeting immediately following the meeting of the Council held at the close of the last meeting of the House of Delegates in the Annual Convention, and shall organize by electing its chairman. Its secretary shall be the Executive Secretary of the Association. It shall meet with the Executive Secretary on the call of the Chairman, or of any three members, to plan and execute such work as may be necessary for the welfare of the Association and the conduct of the Executive Secretary's office. It shall have all jurisdiction with respect to medical defense activities of the Association and shall be governed by the rules it adopts concerning that activity and by the Bylaws of this Association. It shall make decisions for the Association, including matters pertaining to THE JOURNAL, during the intervals between the meetings of the Council, and shall report its actions to the Council.

Sec. 2.—It shall prepare a budget for the ensuing fiscal year; and all expenditures of the Association, except those otherwise provided for under the Constitution and Bylaws, shall be governed by the budget. No expense not provided for in the budget or otherwise under the Constitution and Bylaws shall be incurred by any officer, commission or committee. A committee, commission or officer may submit a request for funds to meet unusual expenses not included in the annual budget, and the Executive Committee shall have the power, by a two-thirds vote, to amend the budget to provide such funds.

CHAPTER X.—THE GRIEVANCE COMMITTEE

Section 1.—The Grievance Committee shall be composed of nine physicians, three of whom may be past presidents of the Association, and all of whom shall be appointed by the President. Not more than two physicians shall be appointed from any one councilor district. No member shall hold any elective office in the State Association during tenure on this committee. Of the nine physicians first appointed, three shall serve for a period of one year; three for two years; and three for three years. Thereafter, three shall be appointed each year for a three-year term to fill the vacancies caused by the expiration of terms. Any vacancy occurring in this committee, other than by expiration of term, shall be filled by an interim appointee to serve the balance of the unexpired term. This committee shall organize itself by electing a chairman, a vice-chairman and a secretary.

Sec. 2.—This provision regarding the constitution of the Grievance Committee shall be construed to mean that the present committee of that name is continued in that position with the terms of its members expiring and new members to be appointed on the basis of this provision being operative and effective as of the dates of their respective original appointments; and it is not to be construed as having the effect of creating a new committee, all of whose members are to be appointed upon this amendment being adopted and becoming effective.

Sec. 3.—In addition to the above provided organization and membership of the committee, the President of the Association shall appoint an accredited psychiatrist as a consultant for the committee, whose tenure of office shall be on an annual basis. The appointment of the psychiatrist may be made from any councilor district of the Association, irrespective of the membership of the committee including another member or members from the same councilor district. He shall have the same rights and privileges as other members of the committee except that he shall not have the right to vote.

Sec. 4.—The duties of this committee shall be to receive complaints, appeals or suggestions from physicians or laymen concerning professional conduct. It shall attempt to find the facts regarding any matter brought to its attention, through procedures proper and appropriate to that end, and shall attempt to adjust differences between patients and physicians, and between physicians. It may, if it believes the facts justify such action cite a member of the Association to the Council of the State Association. It shall, subject to the approval of the Council, draw up a set of rules and regulations governing its procedure and official actions.

CHAPTER XI.—THE COMMISSION ON CONVENTION ARRANGEMENTS

Section 1.—The Commission on Convention Arrangements, with the advice and assistance of the Executive Secretary, shall provide suitable accommodations for meetings of the Association, including the House of Delegates, Council, and of their respective committees, the scientific and technical exhibits, and in conjunction with the Executive Secretary, shall have general charge of all the arrangements. Its chairman shall report an outline of the arrangements to the Executive Secretary of the Association for publication in THE JOURNAL and in the official programs, and shall make additional announcements during the session as occasion may require. The arrangements and the character of any and all technical exhibits must meet with the approval of the Executive Committee of the Association.

Sec. 2.—It shall, with the approval of the Executive Committee, prepare a program for scientific work for the annual convention in which shall be included the respective programs for section meetings which shall be prepared through cooperation with the officers of the various sections; and it shall, with the approval of the Executive Committee, arrange for scientific exhibits as a part of the Annual Convention.

Sec. 3.—The general, scientific and sectional programs, and the financial arrangements to provide for them must be approved by the Executive Committee before being officially announced.

CHAPTER XII.—THE STUDENT LOAN COMMITTEE

Section 1.—The Student Loan Committee shall be constituted as follows:

(a) The President of Indiana State Medical Association
(b) One Councilor of the Association to be appointed by the President
(c) One general practitioner to be appointed by the President
(d) One specialist to be appointed by the President
(e) The Treasurer of Indiana State Medical Association
(f) The Dean of Indiana University School of Medicine
(g) One of the attorneys of Indiana State Medical Association to be appointed by the President

Sec. 2.—This committee shall have authority to make loans to medical students in accordance with the terms and conditions under which funds are made available for that purpose. The committee shall organize itself at its first meeting following the Annual Convention of the Association, by the election of a chairman and a secretary. The committee shall adopt its own rules and regulations, subject to the approval of the Council. The secretary shall have the duty and responsibility of keeping minutes of all transactions of the committee, and shall file a copy of such minutes, as well as a copy of all papers pertaining to any application or loans, in the Headquarters Office of the Association.

CHAPTER XIII.—THE MEDICAL-LEGAL REVIEW COMMITTEE

Section 1.—The Medical-Legal Review Committee shall consist of three members whose duty it shall be to meet in joint session and work with a similar committee to be appointed by the President of the State Bar Association. This committee of the Medical Association shall function as the medical representatives provided for in the Joint Inter-Professional Code of the State Medical Association and the State Bar Association to carry out the purposes of that Code. Its duties shall be as stated in that Code in the form in effect from time to time as approved by the Association.

CHAPTER XIV.—THE FUTURE PLANNING COMMITTEE

Section 1.—The Future Planning Committee shall consist of nine members to be appointed by the President for terms of three years. Terms shall be staggered so that three members' terms expire each year; at the first, three members shall be appointed for one year, three for two years and three for three years. Thereafter all appointments shall be for a period of three years. The President, President-elect, Chairman of the Council, Chairman of the Executive Committee and Editor of THE JOURNAL shall be ex-officio members. The membership should be varied, according to experience, age, size of local county medical society and geographical area. At least one-third to one-half should be in the age group who would be in practice in the future contemplated, that is ten to twenty years distant.

Sec. 2.—The function of this committee shall be to study and anticipate future trends and to stimulate the various commissions in coordinated directions so there is concord to the entire operation of Indiana State Medical Association. It is not contemplated that it be an operational committee.

CHAPTER XV.—THE COMMISSION ON CONSTITUTION AND BYLAWS

Section 1.—The Commission on Constitution and Bylaws shall keep in contact with the developments and changes in procedures in carrying on the work of this Association; shall suggest revisions necessary to keep the Constitution and Bylaws always in accord with the practices and procedures best adapted to the functioning of the Association; and shall keep the practices and procedures of the Association consistent with the provisions from time to time contained in the Constitution and Bylaws—to the end that all members of the profession, by reference to the Constitution and Bylaws, may be able to obtain accurate information regarding procedure and practice within the Association, and that hampering of such procedure and practice by obsolete provisions in the Constitution and Bylaws may be avoided.

CHAPTER XVI.—THE COMMISSION ON LEGISLATION

Section 1.—The Commission on Legislation shall study all legislation, both state and national, and all local legislative trends and movements, as to their effect upon the practice of medicine and the protection of the public health; shall keep the profession informed at all times concerning the matters within its area of responsibility; shall conduct investigations of legislative proposals; and shall maintain liaison with members of the State Legislature and of the United States Congress, and with the legislative activities of the American Medical Association. It shall strive to implement and make effective the legislative proposals adopted by the Association.

CHAPTER XVII.—THE COMMISSION ON PUBLIC INFORMATION

Section 1.—The Commission on Public Information shall collect and organize for dissemination to the public all matters of public interest within the field of medicine, including the activities of other commissions in which the public interest would be involved, and including also the achievements in the advancement of medicine which would be of interest to the public; shall disseminate all such information through the use of whatever media the Commission may find adaptable to that purpose so that such information may be brought to the public in the most effective and convincing manner; and shall develop and maintain the relations of the medical profession with the public in such a way as to give the lay public a better knowledge and understanding of the aims, objects and value of the profession to the public.

CHAPTER XVIII.—THE COMMISSION ON GOVERNMENTAL MEDICAL SERVICES

Section 1.—The Commission on Governmental Medical Services shall concern itself and assume special responsibility in obtaining information and giving counsel and advice to the Association with respect to all matters in which medical service comes into contact with any existing or proposed functions of government, including civil defense, rehabilitation of persons handicapped by abnormality or disease, medical service in welfare departments, maternal and child health programs sponsored through governmental agencies, medical care of military manpower, plans and programs for medical care of veterans, medical care for dependents of those in uniformed services of the Government, plans and programs of the Government for medical care now existing or which may hereafter be adopted by any special group, government programs for elimination of venereal disease and other communicable diseases, and all programs and plans for medical care to be provided through municipal, state or federal governments.

CHAPTER XIX.—THE COMMISSION ON PUBLIC HEALTH

Section 1.—The Commission on Public Health shall assemble and study information regarding industrial medical practice, rural health, preventive medicine, placement of physicians, traffic safety, conservation of hearing and vision; and shall bring such information, and the possibility of progress and advancement in such fields, to the attention of the medical profession, with suggestions for improvements as the commission finds such possibilities.

CHAPTER XX.—THE COMMISSION ON VOLUNTARY HEALTH AGENCIES

Section 1.—The Commission on Voluntary Health Agencies shall maintain liaison between all voluntary health agencies and the Association; shall

study and counsel in regard to planning all educational and other activities of such agencies; and shall keep the Association fully informed at all times regarding present and contemplated programs of these agencies.

CHAPTER XXI.—THE COMMISSION ON MEDICAL ECONOMICS AND INSURANCE

Section 1.—The Commission on Medical Economics and Insurance shall study and improve forms used in medical and hospital insurance; shall continuously be interested in all types of plans for prepayment of medical and hospital expense, and for provision for medical and hospital service through all types of group activity; shall maintain liaison with labor with respect to labor's problems involving medical and hospital care, and Workmen's Compensation problems; and shall seek improved solutions of professional liability or malpractice problems, tax problems in relation to medical practice, and problems involving physician retirement plans.

CHAPTER XXII.—THE COMMISSION ON INTER-PROFESSIONAL RELATIONS

Section 1.—The Commission on Inter-Professional Relations shall study to find all the best methods of maintaining on the highest and most satisfactory levels physicians' professional relations with hospitals, nurses, dentists, pharmacists, pharmaceutical manufacturers, veterinarians, nursing homes, and all other professional groups with which the practice of medicine comes into contact.

CHAPTER XXIII.—THE COMMISSION ON MEDICAL EDUCATION AND LICENSURE

Section 1.—The Commission on Medical Education and Licensure shall maintain liaison with, and try to be of assistance to, medical schools and the licensing board; and shall keep in contact with, and endeavor to assist in improving, undergraduate education, postgraduate education, intern training, resident training, preceptor instruction, and public school health education.

CHAPTER XXIV.—THE COMMISSION ON SPECIAL ACTIVITIES

Section 1.—The Commission on Special Activities shall organize and promote support for the American Medical Education Fund, assistance to physicians, blood banks, and all miscellaneous activities not falling within the area of responsibilities of other commissions or committees.

CHAPTER XXV.—THE COMMISSION ON THE AGED AND AGING

Section 1.—The duties of this Commission shall be to study, investigate, and make recommendations to the Association in the areas falling within the question of the aged and aging, including medical care programs, medical care insurance, rehabilitation, and preventive medicine.

CHAPTER XXVI.—REFERENCE COMMITTEES

Section 1.—Immediately after the organization of the House of Delegates at each Annual Convention, the President shall announce the membership of the reference committees to serve during the convention for which they are appointed. Appointments to these reference committees shall be made by the President in time for them to be published in THE JOURNAL and the Handbook prior to such Annual Convention.

The President shall have the power to appoint substitutes from among the members present for absent appointees.

Each committee shall consist of five members, at least three of whom shall be members of the House of Delegates. The chairman shall be named by the President from among those who are members of the House of Delegates. To these committees shall be referred all reports, resolutions, measures and propositions presented to the House of Delegates, except such matters as properly come before the Council, and the recommendations of these committees shall be submitted to the next meeting of the House of Delegates for acceptance in the original or modified form or for rejection.

Sec. 2.—The following Reference Committees are hereby constituted to which shall be referred all matters as indicated by the titles of the committees:

(1) Sections and Section Work
(2) Rules and Order of Business
(3) Medical Education and Hospitals
(4) Legislation
(5) Public Relations
(6) Hygiene and Public Health
(7) Amendments to the Constitution and By-laws
(8) Reports of Officers
(9) Credentials
(10) Insurance
(11) Miscellaneous Business

Where a report, resolution, measure, or proposition deals with more than one subject matter, reference thereof may, in the discretion of the President, be made (a) to as many Reference Committees as are necessary to cover all subjects included therein; or (b) to only one Reference Committee which the President deems has within the scope of its reference the most important part of the matter referred.

No report of any Reference Committee shall be rejected on the ground that it covers something not included in the matters which such Committee was created to consider.

Sec. 3.—The time and place of meetings of all reference committees shall be publicly posted, and all meetings of all reference committees shall be open to all members of the Association.

Officers and chairmen of all committees whose reports are referred to reference committees shall

have the right to appear and be heard before the respective committees to which such references are made, in regard to their reports.

CHAPTER XXVII—COUNTY SOCIETIES

Section 1.—All county societies now in affiliation with this Association or those which may hereafter be organized in this state, which have adopted principles of organization not in conflict with this Constitution and Bylaws, shall, on application receive a charter from and become a component part of this Association. The acceptance or retention of this charter shall be regarded as a pledge on the part of said component society to conduct itself in harmony with the letter and spirit of this Constitution and Bylaws and other rules and resolutions of this Association.

Sec. 2.—Charters shall be issued only upon approval of the Council and shall be signed by the President and Executive Secretary of this Association. The Council shall have authority to revoke the charter of any component society whose actions are in conflict with the letter and spirit of this Constitution and Bylaws.

Sec. 3.—Only one component medical society shall be chartered in any county. Where more than one county society exists, friendly overtures and concessions shall be made, with the aid of the Councilor for the district if necessary, and all of the members brought into one organization. In case of failure to unite, an appeal may be made to the Council, which shall decide what action shall be taken.

Sec. 4.—Each county society shall be judge of the qualifications of its own members, but, as such societies are the only portals to this Association and to the American Medical Association, every reputable and legally registered physician who holds a degree of Doctor of Medicine or a degree of Bachelor of Medicine, and who does not practice or claim to practice, nor lend his support to, any exclusive system of medicine, shall be eligible for membership. Provided, however, that each county society may deny membership in such society for infraction or violation of any law relating to the practice of medicine or of the Constitution and Bylaws of such society, the Constitution and Bylaws of the Indiana State Medical Association or for a violation of the Principles of Medical Ethics of the Indiana State Medical Association; and may, after due notice and hearing, censor, suspend or expel any member for any such infraction. Before a charter is issued to any county society, full and ample notice and opportunity shall be given to every physician in the county to become a member.

Sec. 5.—Any physician who may feel aggrieved by the action of the society of his county in refusing him membership, or in suspending or expelling him, shall have the right to appeal to the Council, and its decision shall be final.

Sec. 6.—In hearing appeals the Council may admit oral or written evidence as in its judgment will best and most fairly present the facts, but in case of every appeal, both as a board and as individual Councilors in district and county work, efforts at conciliation and compromise shall precede all such hearings.

Sec. 7.—When a member in good standing in a component society moves to another county in this state, his name shall be transferred without cost to the roster of the county society into whose jurisdiction he moves, provided the transfer is approved by majority vote of the membership of said society to which the transfer is proposed.

Sec. 8.—A physician who has the major part of his practice in a county other than the county in which he resides may hold his membership in the county society of his residence or in the county society of the county in which he has the major part of his practice. However, no physician shall hold active membership in more than one county society at the same time.

Sec. 9.—Each component society shall have general direction of the affairs of the profession in its county, and its influence shall be constantly exerted for bettering the scientific, moral and professional status of every physician in the county; and systematic efforts shall be made by each member, and by the society as a whole, to increase the membership until it embraces every qualified and honorable physician in the county.

Sec. 10.—At the annual business meeting for election of other officers, in advance of the Annual Convention of this Association, each county society shall elect delegates and alternates to represent it in the House of Delegates of this Association, and the secretary of the society shall send a list of such delegates and alternates to the Executive Secretary of this Association annually on or before February first.

Sec. 11.—The secretary of each component society shall keep a roster of all its members and of the non-affiliated registered physicians of the county, in which shall be shown the full name, address, college and date of graduation, date of license to practice in this state, and such other information as may be deemed necessary. In keeping such roster the secretary shall note any changes in the personnel of the profession by death, or by removal to or from the county, and in making his annual report he shall be certain to account for every physician who has lived in the county during the year.

The secretary of each component society shall prepare and send to the Councilor of his district a quarterly report briefly stating the activities of his county society including meetings, programs, changes in officers and personnel of membership. A copy of this quarterly report to the Councilor shall also be sent to the Executive Secretary of the State Association. The State Association shall supply each county secretary a form for these reports.

Sec. 12.—The fiscal year of the Association shall be from October 1 to September 30 of the succeeding year. The dues shall be collected by the calendar year and payable in advance.

The secretary of each component society shall forward the dues for his society, together with the

roster of officers and members and list of non-affiliated physicians of the county, to the Executive Secretary of this Association, on or before January 1 of each year and he shall promptly report thereafter the names of any new members elected to membership in his society, and promptly forward to the Executive Secretary of this Association the dues for such new members.

The dues shall be the same for all members and entitle the members to all benefits, including the publications of this Association, from the time of paying the dues to the close of the year only. Provided, however, that physicians elected to their first membership in this Association during the first nine months of any year shall pay the regular annual dues for that year; and those elected to their first membership after October 1 of any one year shall pay fifty percent of the annual dues as dues for the remainder of that year. Interns and residents shall pay $15.00 a year annual dues during their term of service in the hospital.

In the event the county society remits a member's dues on account of financial hardship, the secretary of the county medical society shall recommend in writing to the councilor of his district the remission of the state association dues of said member of the society, showing why such recommendation should be granted. The councilor in turn shall present the recommendation to the Council, which shall have the power to remit such dues.

Sec. 13.—Any county society which fails to pay its dues or make the report required by February 1 of each year shall be held suspended, and none of its members or delegates shall be permitted to receive any of the publications of the Association or participate in any of the business or proceedings of the Association or of the House of Delegates until such requirements have been met.

Sec. 14.—Each county society shall be held responsible for the faithfulness in the performance of duty on the part of its secretary in making reports and remitting dues to the Association.

Sec. 15.—Each component society shall have its own Constitution and Bylaws, which shall not be in conflict with the Constitution and Bylaws either of this Association or of the American Medical Association. An up-to-date copy thereof shall be filed with the Executive Secretary of the Indiana State Medical Association not later than May 1 of each calendar year, or where such copy is so on file and no change has been made, then it shall be sufficient to file a certificate to that effect with said Executive Secretary.

CHAPTER XXVIII.—COUNCILOR DISTRICT MEDICAL SOCIETIES

Section 1.—A Councilor District Medical Society, hereinafter called the District Society, shall be a society whose members consist of the members of the County Medical Societies in the Counties which constitute the Councilor District.

Sec. 2.—The State shall be divided into thirteen (13) Councilor Districts with the boundary lines and numbers of each District to be as follows:

First District—Posey, Vanderburgh, Warrick, Spencer, Perry, Pike and Gibson Counties.

Second District—Knox, Daviess, Martin, Monroe, Owen, Greene and Sullivan Counties.

Third District—Dubois, Crawford, Harrison, Floyd, Clark, Scott, Washington, Orange and Lawrence Counties.

Fourth District—Jackson, Jennings, Jefferson, Switzerland, Ohio, Dearborn, Ripley, Decatur, Bartholomew and Brown Counties.

Fifth District—Clay, Vigo, Vermillion, Parke and Putnam Counties.

Sixth District—Shelby, Rush, Fayette, Franklin, Union, Wayne, Henry and Hancock Counties.

Seventh District—Morgan, Johnson, Marion and Hendricks Counties.

Eighth District—Madison, Delaware, Randolph, Jay and Blackford Counties.

Ninth District—Fountain, Montgomery, Boone, Hamilton, Tipton, Clinton, Tippecanoe, Warren, Benton, White and Newton Counties.

Tenth District—Jasper, Porter and Lake Counties.

Eleventh District—Carroll, Howard, Grant, Huntington, Wabash, Miami and Cass Counties.

Twelfth District—Wells, Adams, Whitley, Allen, Noble, DeKalb, LaGrange and Steuben Counties.

Thirteenth District—Pulaski, Fulton, Kosciusko, Marshall, Starke, LaPorte, St. Joseph and Elkhart Counties.

Sec. 3.—Each District Society shall adopt a Constitution and Bylaws, which shall not conflict with the Constitution and Bylaws of the State Association, and only one District Society shall exist within any one Councilor District. The authorized District Society in each Councilor District shall receive a charter from the State Association, and the Secretary of the District Society shall have custody of the charter.

Sec. 4.—Each District Society shall organize by electing a President, a Secretary, and a Treasurer and a Councilor and Alternate Councilor as the current Councilor term and Alternate Councilor term for the district expires, and such others as may be provided for in its Constitution and Bylaws. The office of Secretary and Treasurer may be held by the same physician. The Councilor shall continue to have the same duties and terms as are set forth in the Constitution and Bylaws of this Association.

Sec. 5.—The dues of the District Society, in an amount fixed by the District Society to meet the District Society needs, shall be collected by the Secretaries of the component County Societies and delivered to the Treasurer of the District Society.

The Secretary of each District Society shall report to the office of the State Association the names and addresses of the members of his District Society, together with a copy of the minutes of each meeting of the District Society.

Sec. 6.—Each District Society shall meet at least once each year at a time and place to be fixed by the District Society. On or before January 1st of each year each District Society shall notify the headquarters of the State Association of the time and place of the annual District meeting for that year; but if no such notification has been received in the headquarters on or before the January meeting of the Council, the Councilor shall fix the time and place of the District meeting, and notice of such meeting shall be sent to the members of the County Medical Societies in such District.

Sec. 7.—Whenever a District Society is to elect a Councilor and/or Alternate, the headquarters office of the State Association shall so notify the individual members of such District Society not later than the first of March of the year in which the election is to occur.

Sec. 8.—The District Society shall send to the headquarters office of the State Association a copy of its program showing the time and place of its meetings, early enough that the headquarters office may notify all members within the District of the meeting at least thirty (30) days prior to the date thereof.

CHAPTER XXIX.—MISCELLANEOUS

Section 1.—The deliberations of this Association shall be governed by parliamentary usage as contained in Robert's Rules of Order, when not in conflict with this Constitution and Bylaws.

Sec. 2.—The Principles of Medical Ethics of the American Medical Association shall govern the conduct of members in their relations to each other and to the public.

CHAPTER XXX.—MEDICAL DEFENSE

Section 1.—One dollar and twenty-five cents out of the annual dues of each member of the Association shall be set aside as a special fund for medical defense.

Sec. 2.—The administration of medical defense of this Association shall be intrusted to the Executive Committee, which shall constitute the Medical Defense Committee of the Association.

Sec. 3.—This Committee shall have full authority governing all matters pertaining to this Chapter. In order to secure to any physician sued or against whom claim is made a fair and full presentation of his defense, the Committee shall have power to enter into an agreement with such physician to furnish to him funds with which to employ and pay one attorney of his choice and such other expenses as the Committee may approve as necessary to a fair and full presentation of his defense. Provided, always, that the attorney selected by the physician must be of good reputation and standing in his profession and the terms of employment, including the fees to be paid, must be approved by the Committee in each case in advance of such agreement. Provided, further, that the Executive Committee shall set a limit to the amount which may be so expended in connection with any one claim or case.

Sec. 4.—The Treasurer of the Indiana State Medical Association shall be custodian of the defense fund, separately kept, and shall give such additional bond as may be demanded by the Medical Defense Committee. Payments out of this fund shall be made only upon approval of the Executive Committee, by checks signed by the Treasurer and the Chairman of the Council.

Sec. 5.—The Medical Defense Committee shall make an annual report to the House of Delegates of the cases in which it has been of service to members and furnish an account of the money received and expended, such report to be published in THE JOURNAL of the Indiana State Medical Association at the time and in the manner that reports of other committees of the Association are published.

Sec. 6.—This Association shall not be liable for any damage awarded, but shall be liable only for such expenses for the legal defense of its members as may be incurred in accordance with the terms of these Bylaws.

Sec. 7.—The Association shall not undertake the defense of a member in any case in which the member who applies for medical defense by the Association has failed to pay his annual dues for the year in which services were rendered which are the basis of the suit; and medical defense by the Association shall not be available in any suit based on services rendered during any period of delinquency in the payment of dues. Dues are payable on January 1, and become delinquent on February 1 of each year. The membership card of this Association, duly signed and dated by the Executive Secretary, shall be considered the only *bona fide* evidence of payment of dues or membership in this Association.

The Indiana State Medical Association shall in no case provide medical defense against any action for alleged malpractice against any physician unless such physician was a member of this Association in good standing at the time the services which are the basis of the suit were rendered.

Sec. 8.—A member desiring to avail himself of the services of the Medical Defense Committee in connection with litigation brought or threatened must send to the Executive Secretary of the Association for an application blank. After completing the data concerning the case he shall submit to a local committee of his county medical society—to be composed of the President, Secretary and one other member in good standing who may be nominated by the defendant—a full statement of the question at issue, including the diagnosis and treatment of the case and the names of physicians, nurses and other persons having knowledge of the same, who may be summoned as witnesses.

Sec. 9.—The committee of the county medical society shall immediately, after an investigation of all the circumstances and facts, transmit its report, with recommendations, to the Medical Defense Committee of this Associaiton.

Sec. 10.—In the event that the county committee shall fail to recommend the case as one worthy of the recognition of this Association, a direct appeal may be made to the Medical Defense Committee of this Association, whose decision shall be final.

Sec. 11.—Suits brought against the estate of a deceased member shall be defended as if that member were alive; provided that such member was in good standing in the Association at the time of his death and that services for which indemnity is asked were rendered while the deceased was a member in good standing.

Sec. 12.—Medical defense shall not be available to members living outside of the State of Indiana at the time services were rendered for which indemnity is claimed.

Sec. 13.—The Medical Defense Committee shall have power to adopt such other rules, not in conflict with the foregoing, as in their judgment may seem necessary.

Sec. 14.—Medical defense as provided for by this Association shall be available to members under the terms stated in these Bylaws only in the defense of civil action for alleged malpractice, and shall not be available if such alleged malpractice occurred when the member was under the influence of any intoxicant or narcotic while rendering the service in question.

CHAPTER XXXI.—DIVISION OF FEES

This Association does not countenance or tolerate fee-splitting, division of fees, or commission paying directly or indirectly, and any member found guilty shall be expelled from membership.

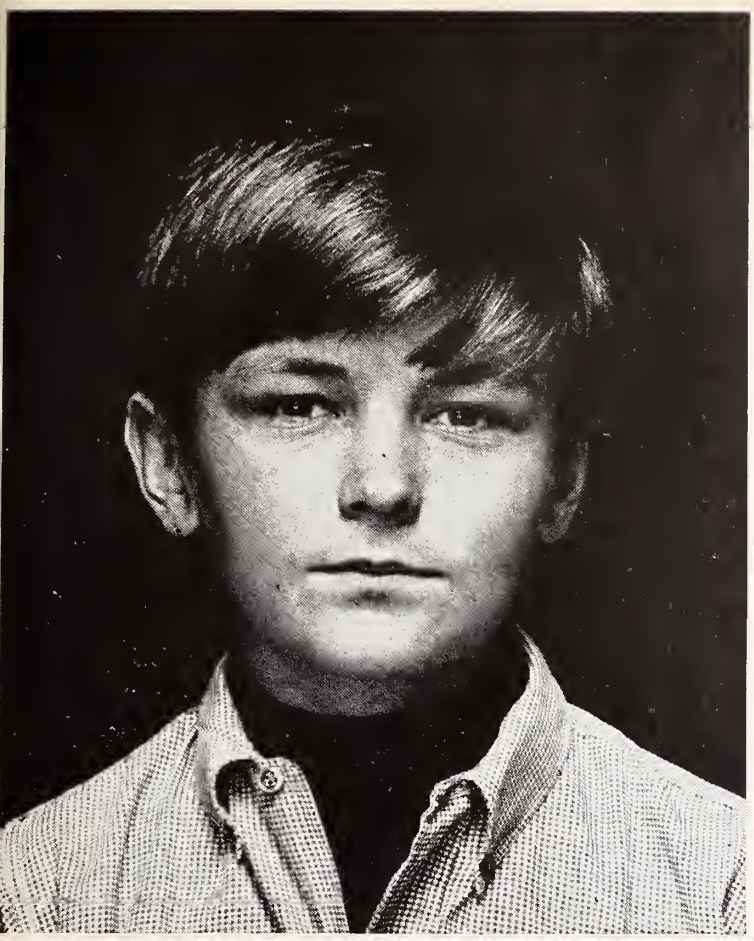
CHAPTER XXXII.—INVESTMENT OF SURPLUS FUNDS

Section 1.—The investment of all surplus funds of this Association shall be under the direct control and management of the Executive Committee subject to instructions in regard thereto which may be given by the Council at its option. The Executive Committee shall have the right and is encouraged to obtain the advice and counsel of the investment departments of any bank or trust company of Indianapolis in regard to the discharge of the duties covered by this chapter of the Bylaws.

CHAPTER XXXIII.—AMENDMENTS

Section 1.—These Bylaws may be amended at any Annual Convention by a majority vote of all the delegates present at that convention, after the amendment has lain on the table for one day.

Sec. 2.—Upon the adoption of this Constitution and Bylaws all previous Constitutions and Bylaws are hereby repealed.



How to turn a 14-year-old boy into a hardened criminal.

Just forget your keys in your car one day.

Tempt some fourteen-year-old boy into going for a joyride.

Oh, he could be a good kid — just weak.

And taking your car might be the first time he's ever broken the law.

But the minute he hops behind that wheel and turns the key, his life may be ruined.

He'll drive around for a few hours, endangering the life of every man, woman and child who crosses his path.

He might be caught the very first time he takes a car. Or if he's not caught by the police he'll leave your car somewhere and decide to do it again, and again, until the day he does get caught.

Teen-agers steal more than 1,000 cars every day.

The U. S. Department of Justice and your state and local law-enforcement agencies are concerned.

They know that taking a car for a joyride is just the first step.

Our prisons are filled with men who started out this way. They went on to become thieves, muggers, and even killers.

You can do something to help solve this terrible problem.

Whenever you get out of your car, even for a second, take your keys. Lock your car.

Every time you do this you may keep a good boy from going bad.

Don't help a good boy go bad. Lock your car. Take your keys.

Principles of Medical Ethics of the American Medica Association

"PREAMBLE"

"These principles are intended to aid physicians individually and collectively in maintaining a high level of ethical conduuct. They are not laws but standards by which a physician may determine the propriety of his conduct in his relationship with patients, with colleagues, with members of allied professions, and with the public.

"Section 1.—The principal objective of the medical profession is to render service to humanity with full respect for the dignity of man. Physicians should merit the confidence of patients entrusted to their care, rendering to each a full measure of service and devotion.

"Section 2.—Physicians should strive continually to improve medical knowledge and skill, and should make available to their patients and colleagues the benefits of their professional attainments.

"Section 3.—A physician should practice a method of healing founded on a scientific basis; and he should not voluntarily associate professionally with anyone who violates this principle.

"Section 4.—The medical profession should safeguard the public and itself against physicians deficient in moral character or professional competence. Physicians should observe all laws, uphold the dignity and honor of the profession and accept its self-imposed disciplines. They should expose, without hesitation, illegal or unethical conduct of fellow members of the profession.

"Section 5.—A physician may choose whom he will serve. In an emergency, however, he should render service to the best of his ability. Having undertaken the care of a patient, he may not neglect him; and unless he has been discharged he may discontinue his services only after giving adequate notice. He should not solicit patients.

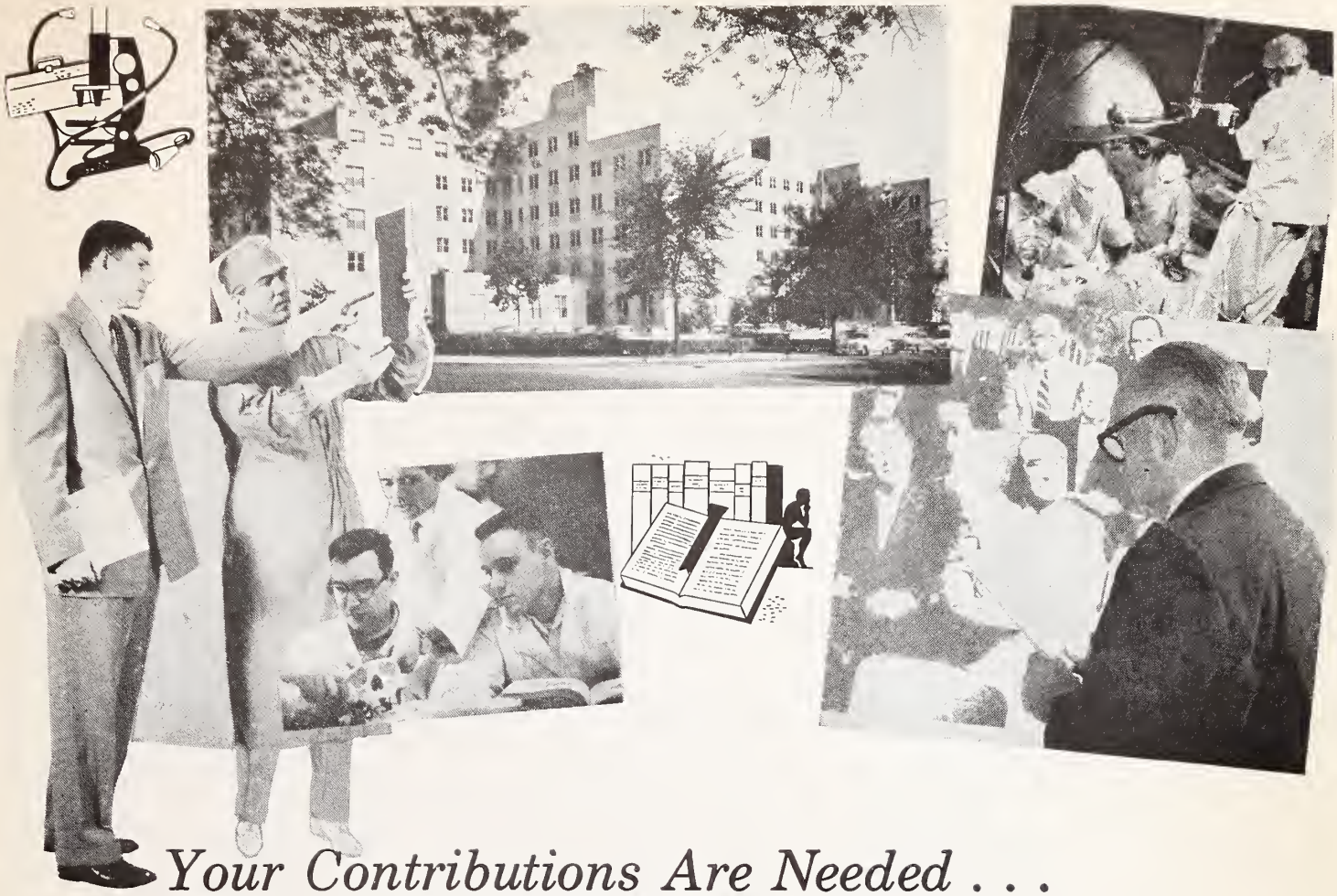
"Section 6.—A physician should not dispose of his services under terms or conditions which tend to interfere with or impair the free and complete exercise of his medical judgment and skill or tend to cause a deterioration of the quality of medical care.

"Section 7.—In the practice of medicine a physician should limit the source of his professional income to medical services actually rendered by him, or under his supervision, to his patients. His fee should be commensurate with the services rendered and the patient's ability to pay. He should neither pay nor receive a commission for referral of patients. Drugs, remedies or appliances may be dispensed or supplied by the physician provided it is in the best interests of the patient.

"Section 8.—A physician should seek consultation upon request; in doubtful or difficult cases; or whenever it appears that the quality of medical service may be enhanced thereby.

"Section 9.—A physician may not reveal the confidencies entrusted to him in the sourse of medical attendance, or the deficiencies he may observe in the character of patients, unless he is required to do so by law or unless it becomes necessary in order to protect the welfare of the individual or of the community.

"Section 10—The honored ideals of the medical profession imply that the responsibilities of the physician extend not only to the individual, but also to society where these responsibilities deserve his interest and participation in activities which have the purpose of improving both the health and the well-being of the individual and the community."



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AMA-ERF

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Education and Research Foundation
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BUY AND TRY: Wye Plantation Aberdeen-Angus frozen semen from Advanced Register P.R.I. sires officially gaining over four pounds per day or whose 365-day weights are above 1,200 pounds. (Performance tested sires always for sale.) **WYE PLANTATION**, Queenstown, Maryland 21658. Telephones: 301-827-7166 or 301-827-7160.

PARTNER WANTED: General practice; M.D. in early 30's in central Indiana town of 12,000 (less than 30 miles from Indianapolis) desires to share a good income, active family practice. A progressive town with a well-equipped, 100-bed hospital and a good medical atmosphere. New ultra modern office. Write Box 343, The Journal, ISMA, 3935 N. Meridian St., Indianapolis, Ind. 46208.

WANTED: General practitioners, anesthesiologist, urologist, obstetrician, orthopedist and pediatrician needed in growing community of 15,000. Service area 25,000. Present 83-bed general hospital. New 100+ bed automated hospital to be completed within two years. City has excellent industry, school system, and recreational activities. 45 minutes from Madison or Milwaukee. Future unusually promising. For more information contact: Administrator, Watertown Memorial Hospital, Watertown, Wis.

WANTED: In a college community, an associate or partner for a large medical practice. No surgery or OB. General practice can be done if desired. X-ray and laboratory facilities in the office. If desired, will consider sale. Write Box 344, The Journal, ISMA, 3935 N. Meridian St., Indianapolis, Ind. 46208.

AVAILABLE: Excellent, well-established medical practice. Services of complete clinical laboratory furnished. All records, all business equipment, instruments and furniture in new building with four other doctors. Health forcing retirement. Will discuss arrangements. Available now in community of about 50,000 in southern Indiana. Write Box 352, The Journal, ISMA, 3935 N. Meridian St., Indianapolis, Ind. 46208.

FOR SALE: In northern Indiana town of 12,000, excellent general practice. Close to large industrial complex. Modern income producing building with rental apartments included with sale of practice. Retirement planned. Reasonable terms. Contact Daniel E. Gray, M.D., 182 W. North St., Crown Point, Ind.

OFFICE FOR RENT: August 5, 1968 and thereafter. Call 924-6261, 1815 N. Capitol, Indianapolis.

EMERGENCY ROOM PHYSICIAN: Excellent opportunity for young physician interested in full-time practice of emergency room care. Join a physician group responsible for the emergency service of two major Cincinnati hospitals. Remuneration on a fee-for-service basis with guaranteed minimum. Must have or be eligible for Ohio license. Send resume to P. O. Box 36163, Cincinnati, Ohio 45236.

ANESTHESIOLOGIST: Solo, fee-for-service, board qualified. Any area considered. Also interested in inhalation therapy consultation, therapeutic and diagnostic blocks. Only offers of interest answered. Write Box 349, The Journal, ISMA, 3935 N. Meridian St., Indianapolis, Ind. 46208.

SEVENTEEN-MAN Wisconsin group located in college community of 40,000 with excellent hospital facilities is seeking additional associates in the following areas:

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Too tense to sleep...too tired to get up. Early to bed, late to rise, and not much sleep at that, the patient with severe psychic tension is understandably tired. His tensions and overreactions to the day's stresses may interfere with proper sleep, and his inability to face the day's activities can produce an ever-worsening pattern. By relieving psychic tension, Valium® (diazepam) facilitates sleep, particularly with an h.s. dose. In many patients, the usefulness of Valium has been demonstrated in relieving psychic tension alone or with secondary depressive symptoms. Valium is generally well tolerated and, with proper maintenance dosage, usually does not unduly impair mental acuity or ability.

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Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in: skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders; athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindications: Known hypersensitivity to drug; children under 6 months of age; acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in treatment of psychotic patients, and should not be employed in lieu of appropriate treatment. As with most CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increase in dosage of standard anticonvulsant medication; abrupt withdrawal in such cases may also be associated with temporary increase in frequency and/or severity of seizures. Advise patients against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance. Keep addiction-prone individuals (such as drug addicts or alcoholics) under careful surveillance because of their predisposition to habituation and dependence. Use of any drug in pregnancy, lactation or in women of childbearing age requires that potential benefit be weighed against possible hazard.

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